

The Best Amiga Magazine

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SEPTEMBER 1993

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Plus

Entertainment Now!

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DAVID PLEASANCE MD COMODORE UK

A Sensational New CD Amiga - The Special AUI Report

SUPERDISK 26

Another bumper AUI Superdisk! - September 1993

Dash - A very nice looking performance monitor.

DiskSalv2 - The latest version of this great PD disk toolkit.

PrintGuide - A helpful utility for printing AmigaGuide documents.

STP - A brilliant module player that gives you a HiFi on which to play your sound modules!

Translate - Convert images into different resolutions using this handy utility.

Workbench Games - 6 great little Workbench games.

VirusChecker 6.28 - The latest version of the best protection around.

Plus 2 great games, Arexx example and Ray Tracing.

1MB RAM REQUIRED.

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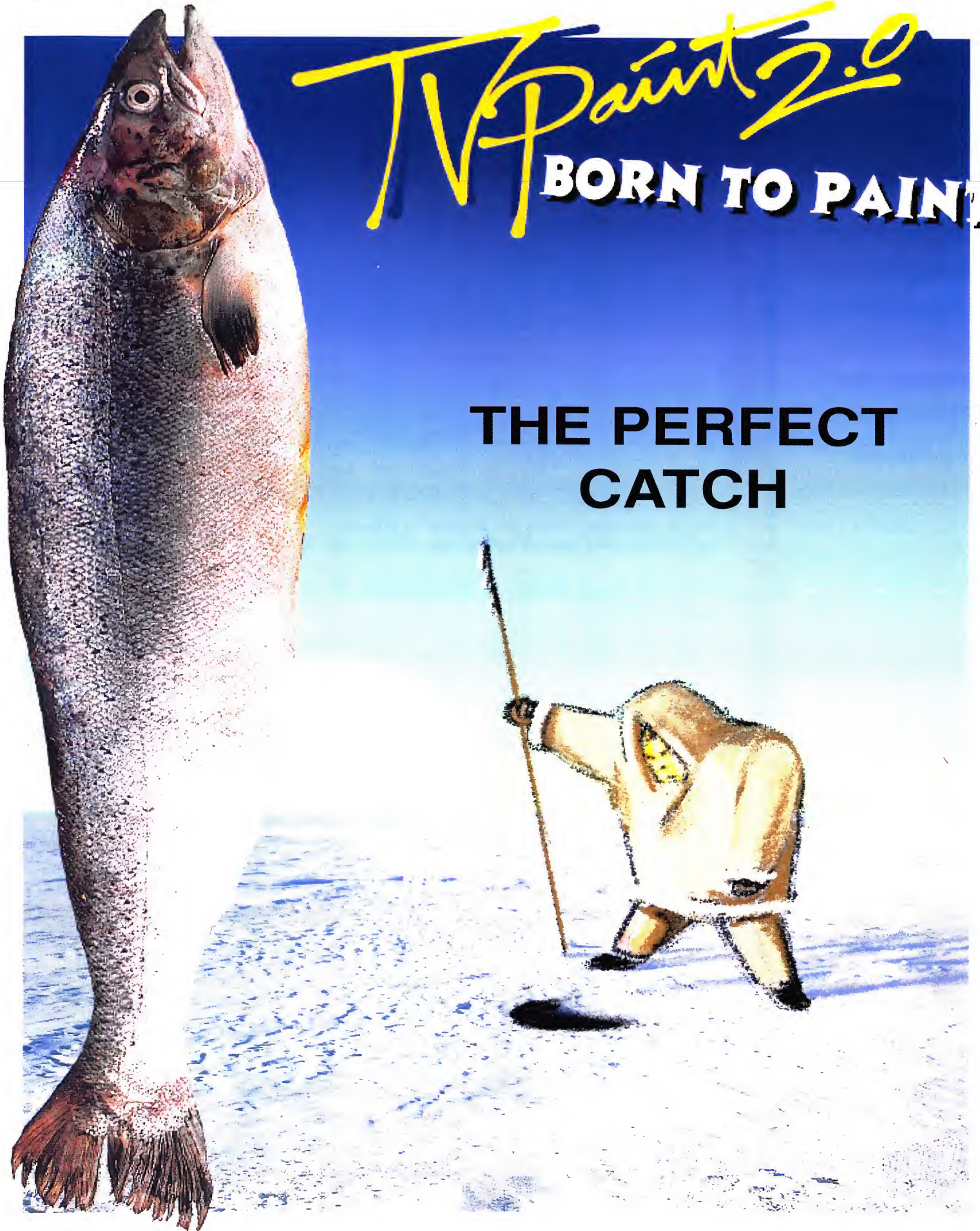


No Disk?
Ask Your Newsagent!
Or see the Superdisk
page 8 in this issue.

FIVE GREAT AMIGA CD 32-BIT CONSOLES TO BE WON!!!!

TV Paint 3.0
BORN TO PAINT

**THE PERFECT
CATCH**



**SUMMER
MADNESS**

Rainbow *Grafix* **III**

Complete With

Version



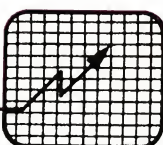
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...And What They Used

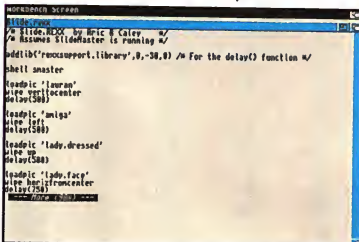
Commodore's Amiga A3000, A2000, A500,
Citizen's Swift 240C, Canon's BH-20
Bubblejet, Consultron's CrossDOS, Electronic
Art's Deluxe Paint IV, GVP's A530 Turbo,
Toshiba's IDE drive, Supra's V32 Fax Modem,
Datel's Action Replay MKIII, ASDG's
Art Department Professional, Epson's GT-
6500 colour flatbed scanner, Readysoft's
AMAX, OpalTech's Opalvision, Innovatronic's
Directory Opus, JCL's ColourPic Plus and
Cabaret, John Veldhuis' VirusChecker, JVC's
HR-D980 Video Recorder, Micro-System's
Scribble!, 32bit RAM from First Choice Com-
puters, Discovery Software's Grabbit.

AUI

*Amiga User International was
first published in 1986. No other
Amiga magazine had, at that time,
been published in Europe. It has
now come under new ownership
and intends to continue as the
best all round guide to the UK
and International Amiga scene.*

CONSTANT FACTORS

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Patrick Howlett brings you
another wonderful Coverdisk
crammed full of 1.4 Mb programs to
make you palpate with pleasure



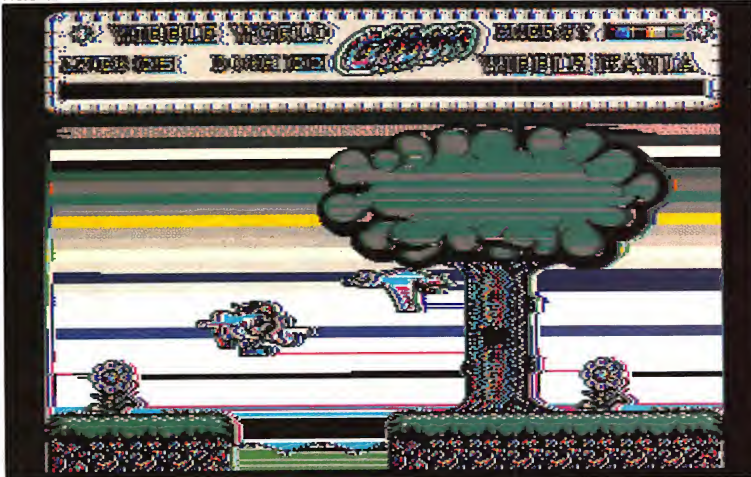
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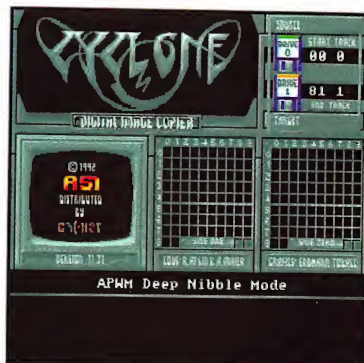


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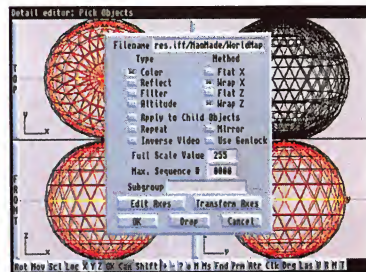
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Get your **AUI** with your breakfast cereal and your morning coffee, instead of finding it sold out!

THE AMIGA CD! SPECIAL



IT'S HERE. IT'S NOW

it's the future of computing on the Amiga. A special edition of Amiga CD! magazine gives you the full story of Commodore's new console-style machine plus a coverage of the emerging, exciting world of the Multimedia Show.

Well, it's here now. Commodore have finally stripped the veil from their until now hidden beauty. I have avoided the cliché "new baby" because the Amiga CD 32 is a well-formed, solidly-based technological development. If that makes it sound dull, it shouldn't. Very often the best advances come just by bringing together existing ideas and making them add up to something more - that's what the once fashionable "synergy" means. The powerful synergy of the Amiga CD 32 is between the best home computer around, the 32 Bit A1200 and the biggest and cheapest storage medium available, the compact disc. The rest of the stuff that will make the new machine buzz, particularly the MPEG-based video, is a part of the accelerating technological change that is hitting all electronic gadgetry. The fact that there is no really revolutionary technology in Amiga CD 32 will mean that Commodore should not have some of the production troubles they and others have faced in the past. They shouldn't, for example, have too many problems in supplying the demand that many think is pent up for a new machine both from the stores and the public. It will also mean that the learning curve for software companies on the machine's technical requirements will not be too steep. So they should not take too long, with their already wide experience on the Amiga, to produce worthwhile programs.

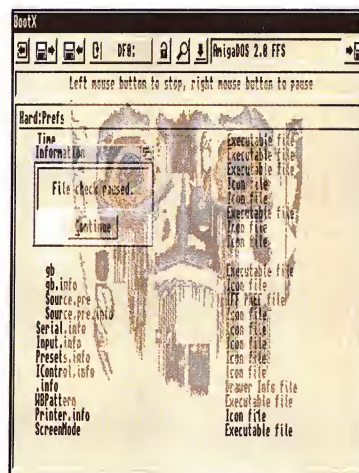
Programs? Yes, although the thrust of Commodore's marketing will be at the gamesplayer, tackling head on the Sega/Nintendo sector, there will be a whole range of other opportunities for developers and users. At £299, with such a cheap and high speed machine, all sorts of other areas will come into the reckoning, everything from training and education to points of sale and information.

The Amiga CD 32 is, as CBM perhaps somewhat prematurely claimed about the CDTV, the first real mass market multimedia machine. And, while we all may be getting just a little weary of hearing the term "multimedia" without seeing much emerging, Commodore's move into a potentially huge mass market with this CD-based wolf of a computer in games console lamb's clothing could be the trigger for an explosion of developments.

Whether the present developers, like the games companies in the UK, have enough resources and vision to exploit the possibilities of the new media is another question. Even those like Ocean or US Gold, though giants in the computer games field, are going to find themselves far too small when it comes to turning themselves into video or film production companies. For the Amiga CD 32 will soon allow full screen video and everything else will pall in comparison to that.

Perhaps some indication of their difficulties is that the probable smash title of the year, Jurassic Park, is, I am told, unlikely to contain a single clip from the movie. Odd? Well, it's a question of cash. The kind of money, an industry figure told me, that Ocean could offer didn't match the ticket sales for just one performance of the movie in the UK. So Commodore's Amiga CD 32 may not just grab a bunch of addictable game players but lead the way into multimedia for a mass market, cause some big changes in games software and even have a major impact on our increasingly electronic world. Not bad for a clapped out old hardware company that started 30 years ago repairing typewriters...

Antony Jacobson
Managing Editor



76 ENTERTAINMENT NOW

Nick Faldo's Championship Golf (Grandslam) • Simarils (Transartica) • Abandoned Places 2 (ICE) • Legends of Valour (US Gold) • Dune 2 (Virgin) • Arabian Nights (Krysalis) • Syndicate (Bullfrog/Electronic Arts) • Flashback (Delphine US Gold)



amiga Superdisk

As usual, Lha has been used to archive the programs but in order to fit everything in you'll find that the articles, games and Viruschecker have also been crunched, so be sure to follow the instructions carefully.

There are several ways of de-archiving the disk but we'll start with the procedure for those wanting to use Workbench and decrunch to a floppy disk. Patrick Howlett is the man responsible.

using floppies

Firstly, format two or more disks ready for the programs and files. If you've already booted from Workbench then insert the AUI Superdisk, double click on its icon and double click on the 'assign' icon. Alternatively, boot your Amiga with the Superdisk, and again, double click on its icon. Now open the Superdisk drawer of your choice and open the program or other drawer of your choice. You should now see a 'double_click_to_

decrunch' icon. DO NOT double click on this yet! Insert an empty floppy disk and double click on its icon, users with one drive only will probably find the disk swapping a bit tiresome from now on and should really follow the instructions to decrunch to the RAM disk before copying the drawer(s) to a floppy. OK, now drag the 'double_click_to_decrunch' icon into the floppy disk window and now double click on it. IconX will open a window and decrunch the selected archive. Now either select update from the pull-down menu (Workbench 2 and 3) or close and re-open the window. The programs drawer should be visible and you can now start using whatever is in the drawer. Repeat the procedure for all the programs that are required but be sure to swap to another empty floppy once the first one becomes nearly full.

shell

Unfortunately, the most recent Superdisks have had a slight problem when using the above procedure on Workbench 1.3 or earlier. We apologise to anyone who has experienced problems and we have now corrected the problem, although it is virtually impossible to test for every possible problem, action or system set-up (that's my excuse and I'm sticking to it!).

Anyway, here is the procedure for when all else fails!!

1. Have 2 empty and formatted floppies ready.
2. Boot up using your Workbench disk.
3. Insert the Superdisk in DF0:.
4. Double click on 'Shell' or 'Cli' to open a window.
5. Type "AUIXX:C/Lha x AUIXX:programs/crunchedfiles/YYYYYY.lha RAM:" (Substitute DF1: for RAM: if you want to de-archive straight to disk). XX must be 23,24, or 25 and YYYYY must be the name of the archive that you want to de-crunch. for example
AUI25:c/lha x AUI25:programs/crunchedfiles/ENVPRINT.LHA RAM:
6. If you de-archived to RAM then you should now copy all the files to floppy using Workbench or the shell.
7. Repeat steps 5 to 6 for all the programs that you want to de-archive.

The programs should now be usable, any problems, drop us a line and we will be happy to help out if we can. The above procedure is a little unwieldy but will work for every single Amiga out there (except those that are dead!). Look out for a new improved Superdisk in the very near future.

A real mixed bunch this month, we've managed to cram in 1.4 Megs of programs, games, articles, tunes and more!!

RAM disk

The procedure for decrunching to the RAM disk is exactly the same as above (except for dragging the icons to the RAM disk window). The de-archiving is a lot quicker but you will need to copy the decrunched programs and files to a floppy by dragging the drawer(s) and/or icons across to the RAM disk window.

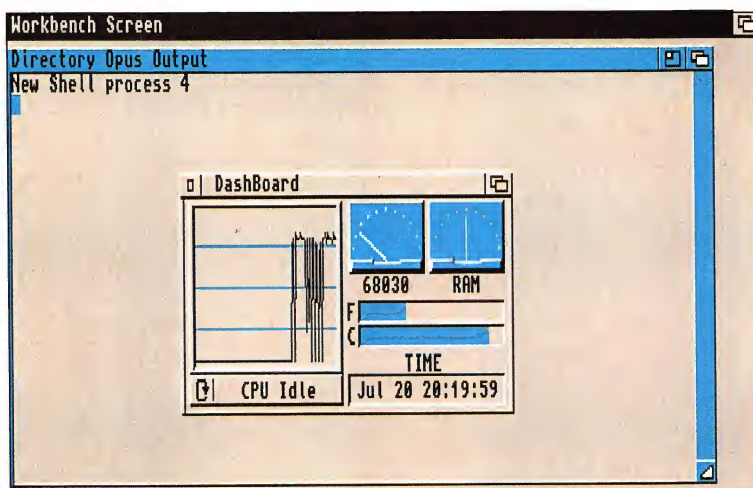
the programs

DashDash is a performance monitor

very much like the Perfmon program supplied with Workbench. This also has a couple of extra dashboard type dials which indicate CPU and memory usage although there is a junior version as well which just has the usual graph display.

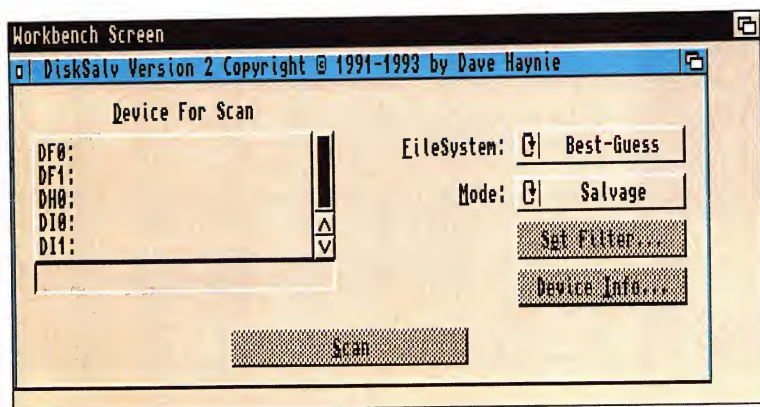
disksalv2

DiskSalv2 is the latest version of the best PD disk utility for recovering disks and files. The program is extremely capable at restoring files from damaged disks and compares very favourably with



Monitor the performance of your Amiga with this utility.

rdDisk26



The latest version of the best PD disk salvage program.

commercial products of a similar nature. Quarterback Tools Deluxe is reviewed this month and shows just how useful a utility such as this can be when things go very wrong.

printguide

AmigaGuide is a document standard developed for Workbench 2 and 3 which uses commands within the document file to format and structure the text. The result is an 'interactive' guide which enables you to search through the various sections and pages with ease. This is absolutely brilliant for on-line manuals and help text but creates a problem should you want to print out the straight text. Although the file is standard ascii it contains lots of weird AmigaGuide commands which makes it very hard to read. Help is at hand though with PrintGuide. This small program simply filters out the AmigaGuide commands leaving just the text behind.

Great eh?

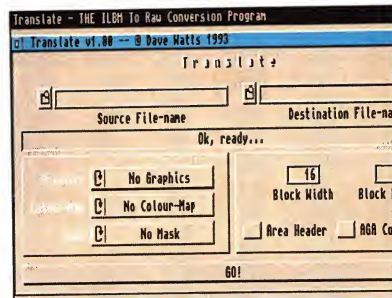
stp

STP is a Soundtracker module player that gives you the functions of a CD player and has a spectrum analyser thrown in for good measure. Players using a simulated HiFi front end have been done before but this one will work on all Amigas and is by far the

best one to date. Click on the open/close button and you can change disks or how about selecting random play or intro (to play a snippet from every module on the disk). Every function actually works just like on a real CD player. Superb!

translate

Translate will change any IFF-ILBM picture into RAW data. The program can handle 1 to 24

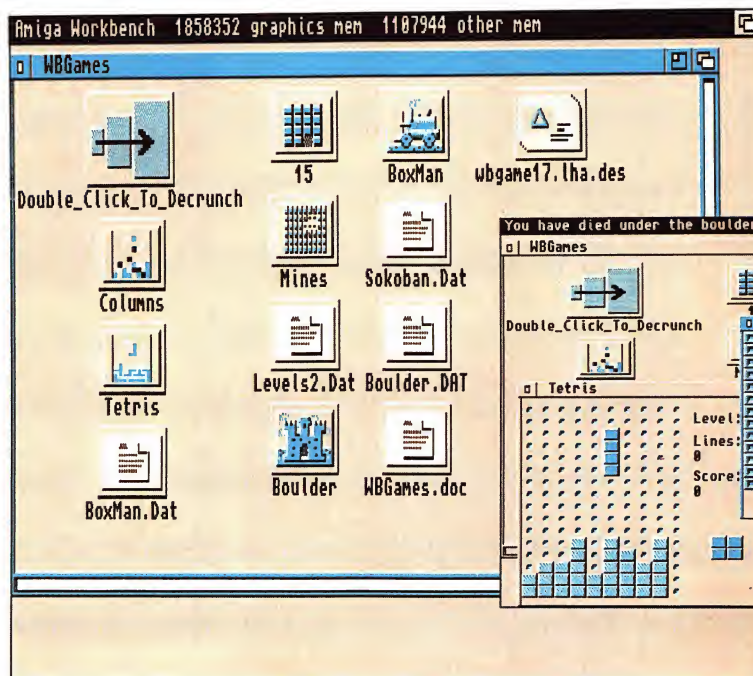


Convert IFF to RAW using Translate.

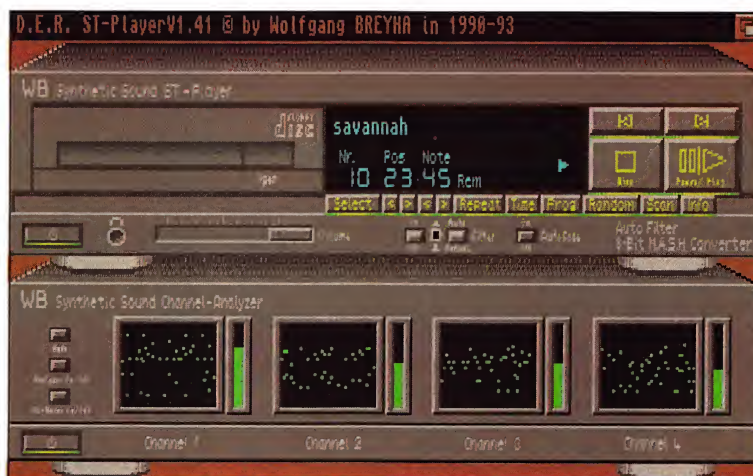
bitplanes and images of any size and will of use to all those programmer and graphics experts out there.

games

It's still holiday time so we've provided a selection of games on this month's Coverdisk. Workbench



There are 6 excellent Workbench games here



STP gives you a full function CD player for your Amiga

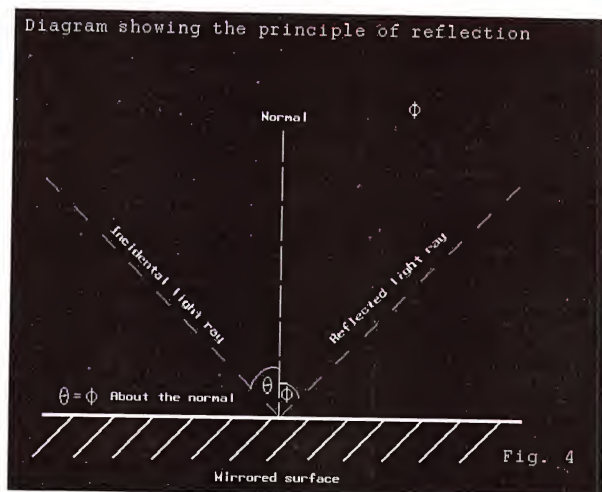
Tetris and Boulderdash simultaneously! games gives you six excellent games which run on the Workbench, ideal for some light relief from intensive keyboard bashing or deep thought. My favourites, Tetris (the simplest games are best!) and, yes, it's Workbench Boulderdash!

Biplanes is an ancient combat game where you take control of a tiny little plane and simply have to blast your opponent from the sky. It's 1 or 2 player action and surprisingly addictive given the incredibly basic look!

Poing is on the classic pong theme but as some unusual features such as superfast levels when you die, and walls that appear from nowhere. It's also got a little tune that is highly annoying and yet catchy at the same time!

articles

The ray tracing article which appeared in last month's **AUI** was the first of 2 parts. Because of space limitations, and all the extra material on the Amiga CD32 we have put in this month, we've put the second part of the article and its accompanying pictures onto the Coverdisk. You will have to decrunch the archive before you can access the text and pictures.



Learn more about the principles of light and ray tracing.

```

Workbench Screen
Slide.rexx
/* Slide.REXX by Eric R. Caley */
/* Assumes SlideMaster is running */
addlib('rexxsupport.library',0,-30,0) /* For the delay() function */
shell smaster
loadpic 'lauran'
wipe vertcenter
delay(500)
loadpic 'aniga'
wipe left
delay(500)
loadpic 'lady.dressed'
wipe up
delay(500)
loadpic 'lady.face'
wipe horizcenter
delay(750)
--- More (98%) ---
    
```

See Arexx working for real.

arexx

To accompany Paul Overaa's continuing series on the first steps in ARExx we have the program Slidemaster, some simple pictures and some Arexx scripts in the Arexx archive. Follow Paul's instructions to see Arexx working for real, in no time you will be as expert as he is - maybe!

Faulty Disk?

In the event that your AUI coverdisk fails to load (because of a read/write error etc), please return it to the following address for a free replacement. Allow 28 days for delivery.

AUI Faulty Disks, 138 Lambeth Walk, London, SE11 6EW

Don't forget to include your name and full postal address in BLOCK capitals. Collector's tokens from the back of cereal packets are not required, thank you.

Reader's Contributions

We are always looking for new and original programs to put on our coverdisk. If you would like to see your name and program feature in **AUI** then please contact **AUI** at the address given in the front of the magazine. Alternatively, give us a call if you think we would be interested in your program (071 487 4284 ext 2186). The shorter the better, under 100k including any libraries - unless it's brilliant! Compiled AMOS programs are welcomed.

Burning Chrome BBS

Thanks to Simon Gardner who helped us to obtain some of this month's programs. If you have a modem you can contact Simon's BBS on 0428 727060 (19.2K HST DS+ V32bis). This is not a voice number so you can't make funny noises down the phone! This is a modem only number!

read the instructions!

If you get stuck with a program you will probably find the answer somewhere in the documentation. That's why it is best to read the official documentation that comes with the programs on the Coverdisk. Unless you have PPMore on your Workbench disk, you may not be able to read the documentation files unless you boot from the **AUI** disk.

Alternatively, if you have the 'More' utility (it comes as standard on Workbench) you can change the default tool of each documentation file to 'More' instead of 'PPMore'. Do this via the Workbench 'Info' or

'Information' option. If you want to print out the text files, boot from your favoured word processor disk and load in the text files from there. Or, if your handy with the CLI, copy the file to par: (if your printer is connected the parallel port) or to ser: (if your printer is connected the serial port).

By the way, if you get really stuck with the Coverdisk then please write in to AUI, not phone! Better still, as we always inform you if there have been any problems on previous disks, try to hang on until next month to see if the answer is there. Thank you. Have fun!

COMPATIBILITY

All of the programs on this month's Coverdisk have been fully tested on an Amiga 500 and an A2000 with Workbench 1.3, an Amiga 3000 with Workbench 2.04, and an

Amiga with Workbench 3.0. If you think you have compatibility problems then please check carefully to see if you have followed the instructions exactly, yes exactly.

NO DISK?

Yes, consult your newsagent! But we've had so many complaints about readers not getting disks that we're trying out a new idea. We can't be responsible for what happens at the end of a long chain of different organisations who handle the magazine when it leaves us, especially outside of this country. We know that someone appears to be taking disks off copies of the magazine in some countries but we don't know whether they are being stolen or taken off as a protection against a large sales tax having to be paid.

So what we propose is this: if you live in the U.K. you will have to consult your newsagent and get him/her to contact the wholesaler etc in the usual way. However, if you are outside the U.K. we want to help you get the advantages of the Superdisk so if you send us £1 in sterling (International Money Order etc) to cover postage etc and we will send you the month's Superdisk. Okay?

shareware

Just a brief reminder that some of the programs on our Coverdisk are Shareware. This means that you can try them out, but if you regularly use them you should send a registration fee to the author. Registration fees are between £5 and £20 and sometimes the author will send you the latest version in return. You can send an International Money Order, or pre-ferably a cheque but many authors don't accept cheques if they are outside the UK. If you want to risk sending cash in a registered post, it's up to you. We wouldn't advise it but it's your money...

6



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D147 SONIC THE HEDGEHOG - Could this be for real???
M127/M128 JESUS ON E'S (2 DISKS) - Possibly the best music demo ever. 27 minutes long (REQUIRES 2 DRIVES).
M130/M131/M132/M133 THE A-Z OF C64 TUNES - A huge collection of old classic C64 game tunes.
M134 RHAPSODY IN BLUE - Jazz.
M135/M136 NUTCRACKER SUITE - Classical music.
M123 KAOS THEORY - Five hardcore tracks.
M119 TECHNO WARRIORS - Rave for 24 minutes.
D046 ENIGMA - The demo that set the standard.
D149 PLANET GROVE - An A1200 only demo. Making use of it's superior AGA chipset.
D145 PIECE OF MIND - Excellent use of vectors, in this Star Trek spoof.
A127 DOLPHIN DREAMS - Beautiful animations.
M084 GATES OF PAGAN - Inspired music disk. V.good.
A093 5 WAYS TO KILL A MOLE - Ten really.

SEE OUR CATALOGUE FOR LOADS MORE DEMOS

U273 - ACCOUNT MASTER

Professional personal finance manager. Very comprehensive, with features that match the full price commercial

U278 - SKICK

Downgrade your A500+, A600 or A1200 to Kickstart 1.3, to aid in incompatibility problems with A500 software.
Also another program allows you to upgrade your A500+ or A600 to Kickstart 3.0, as used by the A1200. This allows you to use the sophisticated functions of Workbench 3.0. Can you be without this disk!!!!

TOP UTILITIES

U215 FREECOPY v1.8 - Removes protection from 60+ commercial games.
U003 M-CAD - Computer Aided Design program.
U009 C-LIGHT - A former commercial Ray-Tracing package, released as public domain software.
U062 SCENE GENERATOR - Generates random life-like scenes, with mountains, water, clouds, ice etc. Incredible results.
U102 AMIGAFOX - Desktop Publishing package.
U137 ELECRO CAD - Circuit board designer.
U142 FREE PAINT - Art package similar to Deluxe Paint.
U154 AUDIO ANIMATION - Animation studio, plus you can add sound effects in sync with the visuals.
U190 GRAPHICS GALLERY - Learn how to produce stunning logos as seen in the top demos.
U267 SPECTRUM EMULATOR v1.4 - The latest version of the Spectrum emulator.
U206 RACE RATER - Horse racing predictor.
U158 NOERRORS - Hides the hard errors on disks, making useless disks into working ones.
U151 P-SUITE - Disk magazine creator, add graphics, sound and even animation sequences.
U150 A500+ EMULATOR - Upgrades your ancient Kickstart 1.3 Amiga into a A500 PLUS. For running Workbench 2.0 on the A500.
U146 AMIGA SYSTEM DISK - A batch of computer diagnostics programs. Make sure your Amiga is in a healthy state.
U186 MED 3.21 - The most popular music sequencer available. We can also provide you with loads of instrument disks - See catalogue.
U178 COMPOSER - Traditional music making with staves and notes.

EDUCATION

E044 THE MATHS ADVENTURE - Maths integrated into a game.
E042 GAS TURBINE ENGINE - Animated cross section.
E037 FOUR STROKE ENGINE - More of the same.
E036 STEAM ENGINE - More animated engines.
E043 WW2 HISTORY BOOK - Loads of text and picture data of the history of the second world war.
G041 FRACTIONS - Test and teaching.
E038 AMIGAIZER - Astronomy program.
E026 A VISIT TO THE RED PLANET - A guided tour of Mars.
E024 TOTAL CONCEPTS DINOSAURS - All you wanted to know about dinosaurs.
E023 TOTAL CONCEPTS ASTRONOMY - All you wanted to know about space.
E022 SPANISH/FRENCH/GERMAN/ITALIAN TUTORS - Four language tutors.
E018 BIORHYTHMS CALCULATOR - Display your personal biorhythms graphs.
E012 EVO - Follow the evolution of man from 20 million years ago.
E003 GRAVITY SIMULATOR - Does just that.
E040 FAMILY HISTORY DATABASE - Family tree plotter.
E033 ELEMENTS - Computerised periodic table.

Check out our catalogue disk for thousands more programs, from the most detailed reference guide on all the best public domain software available. Whats more we are one of the cheapest libraries around, Don't pay £3.00 or even £1.25 when you can have the same software for just 89p.



ALL DISKS ARE
COMPATIBLE
WITH ALL AMIGA'S
UNLESS STATED
OTHERWISE.

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Novell Amiga Option

Cygnus Ed Upgrade

Silica's Offers

*Edited and compiled
by Anthony Mael and
Martin Witton*

SERIOUS MACHINE, FRIENDLY PRICE

Commodore has cut the price of the Amiga 4000 040, the 120Mb version. The machine is still available for £2,099.00 but the price now includes VAT, which is a saving of £367.32.

The machine, which initially established itself in the business presentation sector has since appealed to home users who have upgraded to the A4000 from the A1200 which caused Commodore temporarily to sell out of the A4000 in May 1993. The company has also launched a new monitor to bring more quality to its multimedia range. The 1942 retails for £399.99. The prices of the remaining Amiga 4000 computers are unchanged. But both A4000 030 machines (80Mb and 120Mb) are now available with 2Mb of RAM as standard.

COMPUTERS STEAL MONEY

Major manufacturers of Automated Teller Machines (ATMs) - through the wall cash machines - have refused to explain how, after thieves used stolen data from a bogus cashpoint to draw lots of dollars, they intend to prevent copycat crimes in the US and UK. The computer-smart thieves made off with \$52,000

(£33,000) by creating new ATM cards from original, legitimate cards and withdrew money from machines in New York and Miami.

For two weeks a fake ATM placed in a shopping mall gave users receipts saying no transactions were possible. All the time the machine was recording the card and identific-

ation numbers used, which were then utilised by the thieves to draw cash out of the duped users' accounts.

A recent law passed in New York City required all ATM machines to have cameras, and some of the accomplices have been identified from composite drawings made from film footage. No arrests have been made though - as yet. What they need is computer-enhancement of the photos....

Quote of the Month

According to a recent survey, 93% of young people can play computer games. But only 50% can boil an egg or bake a potato.

Which would you choose to be with on a desert island? And who would become 'Lord of the Flies'

AMOS IN ACTION

Kuma have expanded their range of computing books. Amos in Action, by Anne and Len Tucker, they told AUI, gives ideas, tips and inside information on writing good games with AMOS, the games writing package for the Amiga. Details, write-ups and opinions on the add-on packages for AMOS are also included, as well as contacts for shareware and licenceware libraries and information on how to get games published. For the obviously growing number of Amos fans this might be useful reading. Price £12.95

AMOS IN EDUCATION

AMOS in Education by Anne and Len Tucker, has been written to help AMOS programmers to understand what is needed to produce an educational program, Kuma, its publishers, say. They told us it gives all the information needed to produce an educational program from the initial planning stages to tips and tricks needed to make the program run smoothly. The book starts by giving the full specifications, graphics and code for four educational games. Price 12.95

COMPUTER ARTIST WINS

Top prize for painting at the world's most prestigious art contest, the Venice Biennale, went to UK's Richard Hamilton. What's surprising about that? Well, not so much that Hamilton is a survivor of the hippy and politically committed Sixties but the fact that a major medium for Hamilton these days is the Quantel Paintbox, the vastly expensive computerised graphic system. But painting prize? Could be, if you consider a computer, hardware or software, just another technical aid like the (ordinary) paintbrush or a dab of ink. And why not indeed? We live in a technological age and so do artists. Which, some of us might remember, is what Electronic Arts call their program designers.

NEW P

Panasonic has a new plain paper copier to replace the FP-820 priced at £950.00 (ex VAT).

The 8cpm desk-top model measures 471 (w) x 479 (d) x 291 (h) mm and has been designed for small businesses or as a satellite copier for larger companies. The 100-sheet paper cassette holds A4 or A5 paper and the single sheet bypass is convenient for quick jobs. Colour copies can be easily produced by inserting

AMOS PRICE FALL

Europress Software has announced a price cut on one of its best selling pieces of software - AMOS professional. The firm has cut the price by £20.00 from £69.00 to £49.00 in order to maintain the popularity, they claim, of the title and to continue to strengthen the AMOS games range.

Europress told **AUI** that the price has been reduced on the basis of continuing world economic recession. Oh really?

HISOFT GO HARD

HISoft has diversified into home computer audio products by taking control of 2-BIT systems which trades as AVR. HISoft will continue to use the AVR title on all new hardware projects whilst retaining its own name for software packages. Known best for its sound samplers such as Stereomaster for the Amiga, AVR also developed, for Microdeal, the well-known multimedia-style package - Videomaster. The products will continue to be marketed by Microdeal with HISoft controlling the production and distribution.



Mark Lipman's Sally helps Dyslexics

AWARD FOR SALLY

The Institute for Social Inventions has announced that Sally Systems Ltd has been awarded its Communications Award for 1993. Max Lipman's Sally Systems has developed computer software to help dyslexic children to spell and read to assist with eye to hand co-ordination and correct eye movement. The product created on the Amiga - Dyspell - was initiated in 1987. Since last year the price has dropped from £411.00 to £235.00. A demonstration is available on two disks extracted from the 17 in the full set. Versions are available for all Amigas.

Contact: Sally Systems Ltd., Freepost, SL1917, Maidenhead, Berks. SL6 0BY. Tel: 0628 24626.

FONT FIGHT

Five of the world's largest designers of typeface software have filed a lawsuit against US-based SWFTE International, alleging it pirated their font software.

Bitstream, Adobe, Fontshop Canada, QED

and Emigre Graphics are seeking \$7m (£4.6m) in damages following a claim that SWFTE pirated their text and picture font software and marketed them under the name Typecase III. They have also asked for an injunction

to stop SWFTE from selling Typecase III.

Fontworks claim that SWFTE bought Postscript typefaces from each of the five plaintiffs and then ran them through a conversion package called Fontographer, which

YOUR OWN PERSONAL DRAGON

US Amiga-chip maker Motorola is aiming to become a major player in the Personal Digital Assistant (PDA) market with the launch of a trio of microprocessors aimed at PC and home entertainment markets.

The 68349 Dragon 1 chip (rolls of the tongue nicely, don't you think?) is intended to be used in Personal Intelligent Communicator (PIC) systems and Motorola has licensed Apple's NewtonOS, the operating system that Apple is designing for its own Newton PDA to be used on its PIC handheld unit.

The Dragon 1 chip will run the Magic Cap software developed by General Magic for handheld operating systems. Could we yet see this development driving that longed-for portable Amiga? Not handheld, of course. That, for those in the know, was the now almost moribund Lynx.

created TrueType versions of the original Postscript fonts and sold as as Typecase III.

Many fonts have appeared over the years with interestingly different names but bearing oddly close resemblances to well-established typefaces. And no-one seems to have done anything about it before. We wonder if, in this case, the big Five have given SWFTE plenty of, albeit inadvertent, publicity!

PANASONIC COPIER

optional colour modules and a selection of five colours are available - black, red,

blue, green or brown.

The FP-830 can generate up to 99 copies

continuously at a rate of 8 A4-sized copies per minute and has a first copy speed of 12 seconds. A time-saving auto-start copy function enables the number of copies required to be set during warm up. Useful features include the clamshell design to assist in the removal of misfed paper, while a built-in self diagnostic function automatically indicates the source of any malfunction.



Panasonic's new desktop comes with everything except a desk big enough to put it on

DEAR ALAN, LOVE JOHN

Alan Puzey has received a thank you from John of Videoware as **AUI's** reviews have resulted in increased sales. Not missing an opportunity, John has also mentioned his 'unique idea' which offers every Videoware client a free tape which is "customised with their name and address etc." (Wonder what the 'etc' is - John?) Every tape is different, with graphics chosen at random and personal details inserted via software control. Some graphics are linked to music and sound effects.

To demonstrate his idea, John made a sample customised tape for Alan (perhaps he will do one for Martin or Anthony now we have given him a mention in the News?) All old clients will receive one through the post, and new clients will receive one with their order, or can order the tape for £9.99 and receive a refund with their first order. Nice one John!

Contact: VideoWare, 50 Heather Close, Locking Stumps, Birchwood, Warrington, Cheshire WA3 7NX Tel: 0925 851559.



We don't know what it says either

SIMKAT ETHNIC FONTS

Fonts used for Amiga Video Titling and special effects are usually in Latin characters. Simkat are now offering Ethnic fonts for people to express themselves in their own language, and they told **AUI**, to reach out through multimedia to people who speak the same language. Simkat considered that Asia and Africa were not adequately supported by the Amiga manufacturers, with their many local alphabets, nor by Amiga software developers. So Simkat is offering four different font packages, each to fit with a different program. They include Deluxe Paint by Electronic Arts, the Rashumon graphic word processing package by Harmony Soft, and Video Toaster by NewTek Inc.

Currently available are video titling fonts in:

Arabic, Persian (Farsi), Assyrian (Syriac), Afghani and Ottoman (Old Turkish). Soon to follow are: Armenian, Japanese, Greek, Russian, Hebrew and Indian. And about time too, we say.

For, as regular readers of **AUI** will know, the magazine often receives letters from people who live in countries where they have Amigas but no local fonts, such as Arabic, to use on them.

Inshallah and Salaam Aleikim and other suitable phrases to you, Simkat. May you and your descendants and camels and all who sleep in your tents prosper and be blessed for your welcome help to a neglected group of Amiga users.

Contact: L.C.P.S., Inc.
P.O. Box 2051, Schiller Park, IL 60176, USA.
Tel: 708 678 7183.

FAST SALE

A 19 year old has been arrested after he was found selling console games through a bulletin board which by the use of a cheating device, could then be downloaded onto a disk.

FAST, the piracy body, who have been working with the Metropolitan Police's Computer Fraud Unit said it was the first action of this type taken for a number of years. A previous case was dismissed about three years ago because, they claim, the magistrates didn't understand the technology involved. And they do now?

INTUITION - A PRACTICAL AMIGA PROGRAMMERS GUIDE

There is no reason why anyone with experience in BASIC cannot graduate to the world of C and Intuition, the Amiga's graphical user interface, according to the author, Mike Nelson. (Who he?) The book is aimed at the Amiga programmer with all code presented in C although the information will serve anyone programming in other languages, especially Assembler.

Price £16.95. We can confirm that there is no truth in the rumour that autographed copies sell for £15.95.

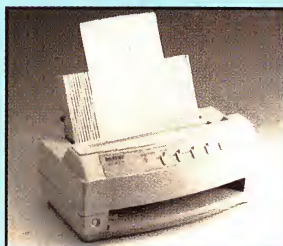
PROGRAM DESIGN TECHNIQUES FOR THE AMIGA

Paul Overaa (Who he, too?) considers the difficulties that users are now facing as they try to program the more complex 16 bit machines that can only be solved by careful program design in this book. He looks at the pitfalls that plague the beginner and offers solutions on how to avoid them, as well as sharing his experience using tricks and tips for more advanced programmers.

Price £16.95. No, and this is not available with Paul's autograph for a pound less either. At least we think it isn't.

All these books are available from Kuma Computers Ltd, 12 Horseshoe Park, Pangbourne, Berks, RG8 7JW. Tel: 0734 844335

BROTHER'S INKJET



Put your Brother on the desk

Inkjet printers offer good value for money according to Brother, but research shows they rarely leave the desktop! So, say Brother, they have launched the HJ-400, a compact inkjet printer designed specifically for desktop use, but selling at a comparable price. It is claimed to be more robust than portable models, but economical on desk space. Priced around £299.00, it has a 100 page sheet feeder and an LED control panel.

Contact: Brother Business Machines, Shepley street, Audenshaw, Manchester M34 5JD. Tel: 061 330 6531.



The Aquatic Royal?

FRYING TONIGHT

Someone in this picture has picked a winner. Can we guess who? We'll give you a clue. He's not a member of the Royal Family and it's not Prince Michael of Kent. James Pond, it is claimed, (And if you believe what is claimed these days, you'll believe piggie-wiggies are orbiting the moon under their own flight plan) was seen enjoying the hospitality of the Royal Family at Derby Day recently and was obviously overjoyed when his horse 'Frying Tonight' came in first past the post by just over a length to complete a hat-trick for the Pond stables. And what, we hear you cry, is all this fishy business about? WE don't know either except that it just could, might even, who knows? be a bit of not extremely finny publicity stunt for a forthcoming tiddler of a game. An upgraded version of a flight simulator? Well, maybe not. We float in a sea of incomprehension...

MOUSE MAT CALENDAR



A mouse mat with a two year life span.

A mouse mat which also doubles as a data source in its own right has just been launched by Shielling Technology. With the new Mouse Mat Calendar, users have a 2-year date presentation as well as a mat which is, they claim, both durable and non-slip, all for £7.95.

Design features, according to Shielling, include an extremely tough PVC top surface - to give high resistance to staining (meaning you can wipe it clean!) and a thick heavy duty rubber base. A 2 year calendar? But 1993 is nearly over. Now if it were 1994 and '95...

Contact: The Shielling Group, Shielling House, Invincible Road, Farnborough, Hampshire GU14 7QU. Tel: 0252 519224.

AMIGA WAREHOUSE

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MAIL ORDER



COMMODORE AMIGA 4000 SERIES

With up to 262,144 colours on-screen at once, the new Amiga 4000 series is a multimedia powerhouse suited to all needs. Whether you choose either the 25MHz 68040-based flagship or the budget-priced 25MHz 68ec030 version, you can be sure of getting the most technically advanced multitasking machine on the market. Upgradeable with industry-standard 32 bit SIMMs and with full on-site maintenance with Wang UK, this is all the computer you will ever need.

A4000/040 6MB RAM, 120MB Hard Drive	£2099.99
A4000/030 2MB RAM, 80MB Hard Drive	£999.99
A4000/030 2MB RAM, 120MB Hard Drive	£1099.99
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We have a wide range of other RAM and HD configurations	£POA

Commodore monitors support both non-interlaced and de-interlaced screen formats, such as DoublePAL:

CBM1960 multiscan monitor .28mm dot pitch, with free 4 watt speakers	£359.99
CBM1942 quadscan monitor .28mm dot pitch, integral 1 watt speakers	£379.99

We also stock a full range of approved upgrades such as: FPU's, PC bridgeboards, SIMMs, graphics cards, etc. Ring us for more information.

A500/A600/A1200

A500/A500 +	
.5MB upgrade for A500 with clock	£24.99
Kickstart Switch for A500	£16.99
Flicker Free Video 2	£189.99
Power IDE with 0/8MB	£99.99
Trumpcard 500AT bare 0/8MB	£119.99
Trumpcard 500AT 80MB 0/8MB	£249.99
VXL*30/32 for A500 2MB RAM	£249.99

A600/A1200	
Kickstart switch for A600	£11.99
2MB PCMCIA	£119.99

BARE HARD DRIVES

Quantum 52MB 3.5" SCSI drive	£139.99
Quantum 85MB 3.5" SCSI drive	£169.99
Maxtor 130MB 3.5" SCSI drive	£239.99
Western Digital 80MB 3.5" IDE drive	£159.99
Western Digital 120MB 3.5" IDE drive	£229.99

A2000/A3000

Commodore mouse	£10.99
A2058 2/8MB RAM	£79.99
A2058 8/8MB RAM	£169.99
A2620/2 68020 for A2000 2MB	£129.99
A2300 Internal genlock for A2000	£49.99
A2286 PC emulator with 5 1/4"FD	£79.99
A2386 386 PC Emulator 1MB	£199.99
1960 monitor - free 4W speakers	£359.99

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AMerge genlock	£249.99
A2300 Internal Genlock for A2000	£49.99
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FrameGrabber by PP&S	£399.99
EDI Y/C Genlock with Scala v1.13	£399.99
EDI Sirius Genlock + Scala v1.13	£699.99
EDI FrameMachine and Prism 24	£589.99
EDI Flicker Fixer (built-in amp.)	£159.99

MICROBOTICS

The new M1230XA is here! Microbotics premier 68030 accelerator for the A1200 with realtime clock, space for an FPU and up to 128MB of RAM!

M1230XA 40/0 40MHz EC030, 0MB RAM	£299.99
M1230XA 40/4 40MHz EC030, 4MB RAM	£399.99
M1230XA 50/0 50MHz 68030, 0MB RAM	£399.99
M1230XA 50/4 50MHz 68030, 4MB RAM	£499.99

Microbotics were the first company to bring out their RAM expansion for the A1200, and now it's even better, with realtime clock and a choice of maths co-processor.

MBX1200z 14MHz 68881, 1MB RAM	£139.99
MBX1200z 14MHz 68881, 4MB RAM	£249.99
MBX1200z 14MHz 68881, 8MB RAM	£349.99
MBX1200z 25MHz 68882, 1MB RAM	£199.99
MBX1200z 25MHz 68882, 4MB RAM	£339.99
MBX1200z 33MHz 68882, 8MB RAM	£419.99

IVS

Turn your A1500 into a powerhouse with just one peripheral! The Vector from IVS gives you 68030 power, a maths co-pro, fast SCSI controller, up to 32MB RAM and full 68000 compatibility!

Vector 25MHz EC030, 68882, with 0MB RAM	£399.99
Call us for other configurations!	

The Trumpcard 500AT (pictured) has room for up to 8MB RAM and an IDE drive. The lowest cost combination.

Trumpcard500AT 80MB HD 0MB RAM	£249.99
Trumpcard500AT No HD 0MB RAM	£119.99

SOFTWARE BARGAINS

Adorage	£49.99
Amiga Vision	£19.99
Animagic	£24.99
Art Department Professional	£159.99
Bars & Pipes Professional v2	£219.99
Media Show	£24.99
MorphPlus	£149.99
Music X v1.1	£24.99
Personal Paint	£49.99
Personal Write	£24.99
ProPage2/ProDraw2 Bundle	£49.99
Scala v1.13	£149.99
Sculpt Animate 4D	£59.99
ShowMaker	£59.99
Spectracolor	£19.99
Super Jam v1.1	£89.99
True Print/24	£44.99
The Art Department	£24.99



HOW TO ORDER

You can order by telephone using your credit or debit card.

You can order by post, by sending a cheque, bankers draft or postal order made payable to Amiga Warehouse.

Please add £1.00 to small orders under £100 and £2.00 to small orders over £100 to help cover postage and packing.

Items that are heavy and/or fragile will only be sent by next-day courier delivery, please add £5.50 for deliveries in the mainland UK and check with us for charges elsewhere. (Next day delivery does not apply to Saturdays. Please call and check our charges for Saturday delivery.)

If paying by cheque, allow seven (7) working days for clearance before despatch.

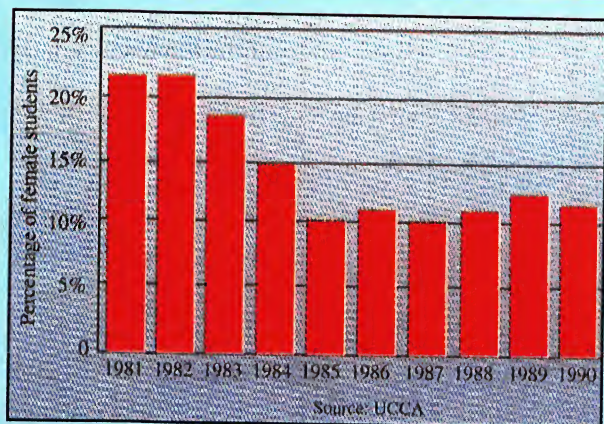
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We welcome overseas orders.

This is only a small sample of what we carry. Call us for items you don't see on the page!

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PERTH AVENUE, SLOUGH
BERKSHIRE, SL1 4XX
Tel: (+44) 0753 554338



CAN IT BE MORE ATTRACTIVE FOR WOMEN?

Government-backed agencies are getting together to encourage more female students to undertake more IT-related courses following latest figures which show a drop in the uptake by women of computer science courses.

The National Council for Educational Technology and the Women into Information Technology groups are getting together to seek sponsorship to fund a £250,000 project to find out why women do not pursue IT-related topics. The number of women entering science and technology jobs is also falling.

Why don't they ask some of the companies who make their living out of women - like the shampoo manufacturers to come up with the dosh for the sponsorship? We don't want women returning to the state described by the misogynist Professor Higgins in *My Fair Lady* when he claimed "Straightening up their hair is all they ever do, why don't they straighten up the mess that's inside?" Do we? (Or do we?)

KEEPING PACE WITH PRINTER

Micro-PACE UK, distributor of Amiga software and hardware have introduced Studio Printer software. This is a flexible printing program which, Micro-PACE told **AUI**, enables the Amiga user to produce continuous tone pictures whether printing from a LaserJet, DeskJet or 24/48 dot printer. Studio includes a program to enable printing directly from disk, so graphics files can be printed even from a standard 512K Amiga. It has a RRP of £49.99 and can be purchased from JAM who offer a special support arrangement.

Contact JAM on 0895 27449. MicroPACE is on 0753 551 888.

HACKERS KNACKERED

Two so called 'intellectual joyriders' were each sentenced to six months in jail as the first people in the UK to be imprisoned under the Computer Misuse Act 1990.

Southwark Crown Court heard how the pair ran up phone bills of at least £25,000 as they broke into computers here and abroad. Damage to their victims' systems was put at

around £120,000. Much of the hacking was achieved using simple equipment such as BBC micros, (we always knew they were morally dangerous machines!). with the pair swapping passwords to access the academic network, Janet and BT's Packet Switch Stream.

They apparently installed rogue dial-out programs on victims'

computers to locate modems elsewhere and erase audit trail files. The court also heard how Woods and Strickland, the "joyriders," even dialled into a database run by an investment banker. In that case why, did they only rip off a mere twenty five grand? All the investment bankers we know use that kind of money as petty cash.



The latest Xerox obviously makes a day at the office an experience to be relished

RANK'S LASER

Rank Xerox have introduced a new desktop laser printer, the Xerox 4213-II, a duplex (two-sided) desktop laser printer designed, they say, to provide "the most cost-effective and versatile print solution for business users." Ah yes, of course it would be, wouldn't it? It offers the benefits of PLC5 and Postscript and can be fitted with Ethernet and Token Ring interfaces. A key feature of the new version II model is its ability to print edge to edge.

AHA!

Software which lets you process handwritten words and diagrams with many of the facilities of a word processor and drawing program, has been launched by a small company in California.

Aha! Software announced that Inkwriter, its first product, lets users write and draw notes with a pen based computer. It runs on Go Corporation's PenPoint operating system. The suggested price is \$249.00 (About £170). Yes, after years of high flown technological development we got a keyboard, then a mouse and now, yes, folks, it's back to the old pen. Will it be a quill style instrument soon?

SIGNS OF LIFE

Artworks have told **AUI** about their two latest disks in their clip art series - Fishing and Freshwater life and Signs and Symbols 3. Artworks have taken advantage of the growing interest from video users who have linked their videos to Amigas and who use Artworks' clip art to compose new screens. With them in mind and for DTP users, the Signs and Symbols disk 3 includes speech bubbles, badges, maps etc. The images work out, they

tell us, at over 1,700 images for £60.00 or at an average of 3p per image! Available by mail order only, priced £6.99 per disk or £6.00 when bulk buying three or more. (By the way, Dace, the name's Martin not Mark!)

Contact: Dace Burman, Artworks, 1 Pond View, Wootton, Ulceby, South Humberside. DN39 6SF. Tel: 0469 588138.

Don't you think

these images speak

for themselves !

ONLY
£99.95

Jason Holburn, Amiga Format
December 1992 issue..

"Vidi Amiga12 ... The best
value digitiser on the market !"

Mat Broomfield, CU Amiga
January 1993 issue.

"Vidi 12 gives unequalled
results for anything within
£200 of its price....Forget
the competition. If you
can afford Vidi 12, buy it.
If you can't afford it,
borrow it from someone
who can !"



Alan Puzey, Amiga User Int.
January 1993 issue.

"..I compared Rombo and
Digiview digitisers
extensively. To summarize
them...I judged the Rombo
results to be more
consistent and have the
edge on quality !"



New Ver. 2.00
software with
AGA chipset
support.

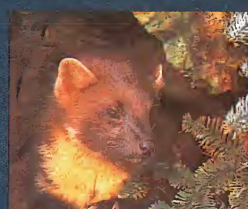
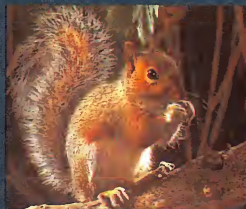
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INTERACTIVE CABLE

Silicon Graphics and Time Warner Cable have announced that they will be working together to develop what they claim is the world's first interactive digital cable television network. Based on the MIPS microprocessor architecture, the new technology will provide consumers with access to services such as video-on-demand, educational resources, interactive video games and home shopping. Time Warner plans the first prototype of the new system in Orlando, Florida by the end of 1993.

The new cable TV system consists of Silicon Graphics' high performance Challenge digital video servers and powerful media set-top devices. The Challenge servers can store hundreds of videos in digital format, for instant delivery to television screens. Each server supports up to 36 R4400 MIPS RISC processors and delivers multiple concurrent streams of real-time video data. The set-top devices will be based on the MIPS multimedia engine which delivers the necessary power for high-speed communications, interactive 3D graphics, an on-screen user interface and compression and decompression for audio and video technologies.

Can we look forward to a similar Amiga channel?

GREENDELL GOES FOR CLR

Greendell Technologies, publishers of education software, have found it pays to release their titles through the Central Licenseware Register. This means they have been able to reduce the price to the 'pocket money' cost of £4.50, hoping to appeal to the 'Airfix model' teenager and young novice horse rider who are, they say, their target marketplace. As Licenseware, the titles come as just two disks, without the poster and packaging used when selling direct. **AUI** reviewed the titles in the Educational pages in past issues and we think that at this price they are good value.

Contact: CLR, Loadcrest PD, 38 Eastbank Street, Bolton, Lancs. BL1 8LT. Tel: 0204 33367.



Sony's new monitor is as pretty as the picture

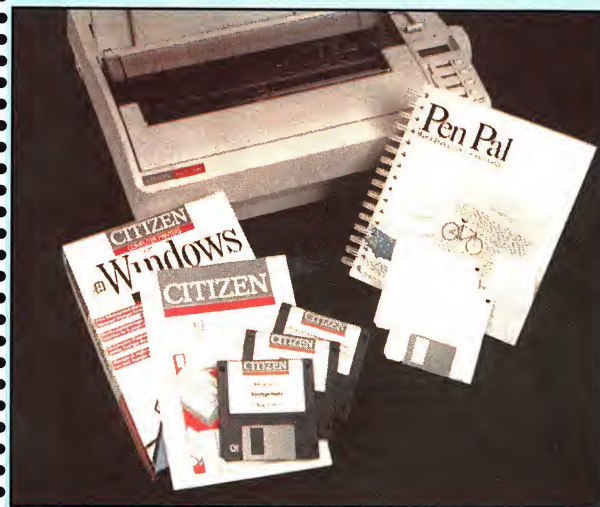
MONITOR MAXIMIZES OUTPUT

Powerful applications can now be enhanced with the CPD-1730 Super Fine Pitch 'Triniton' 'Multiscan' monitor from Sony Computer Peripherals and Components UK.

The CPD-1730 combines an extra large viewable area, easy-to-use digital controls for customising the screen in different video modes, and a crisp, clear virtually, they claim, flicker free image in resolutions up to 1024 x 768 (non-interlaced).

The CPD-1730 features the all-digital Sony Display Memory System (SDMS), which, say Sony, automatically optimises screen images. Once key screen characteristics are customised, up to nine user-definable settings can be saved in the Sony Display Memory System.

Contact: Sony Computer Peripherals & Components UK, Sony Thameside, 1 Kingsbury Crescent, Staines, Middlesex TW18 3AJ. Tel: 0784 466660.



Citizen's free software

CITIZEN'S AMIGA SPECIAL

To celebrate the first anniversary of the Citizen Swift 240C colour dot matrix printer, Citizen Europe has announced a special promotional offer for Amiga users. Every customer who purchases a Citizen Swift 240C or Swift 240 dot matrix printer between July and September will receive a Citizen free software pack worth, Citizen say, up to £58.00. To qualify for a free software pack, customers must complete a claim form available from the dealer with proof of purchase. The pack will then be delivered by Citizen within 21 days. **Contact:** Citizen Europe Ltd., Citizen House, 11 Waterside Drive, Langley Business Park, Langley. Berks SL3 6EZ. Tel: 0753 584111.

ICPUG SPECIAL OFFER!

The long-established Independent Commodore Products User Group is offering half year membership for the six months to 31st December 1993 for only £11.00. A half year's subscription includes three copies of the ICPUG Journal, free PD software, technical help lines and discounts.

ICPUG is non-profit making and is organised by volunteers. It has been in existence for over fifteen years, and not too many in the computer industry can claim that.

The ICPUG PD library contains 1500 Amiga disks, 190 PC-Windows disks, 90 PC-DOS disks (being refreshed), 120 disks for the C64, 122 for the C128 and even 40

disks for the old Commodore PET machines. There are sixteen regional groups, the latest of which is Camberley which offers lectures, advice,

competitions, etc. An 'All about ICPUG' leaflet is available from John Bickerstaff (Bickerstaff? Haven't we heard that name somewhere before?).

Contact: Tel: 081 651 5436. Or write enclosing a SAE to 45, Brookcroft, Linton Glade, Croydon, CRO 9NA.

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GFA BASIC v3.5 Powerful Basic Programming Language	£50.00
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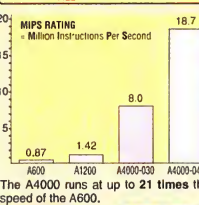
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25MHz 68040

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ADPRO SCANNER SUPPORT

The HP ScanJet IIc is the latest flatbed colour scanner to gain direct support from within ASDG's award winning Art Professional and MorphPlus. The driver (priced around \$200.00) requires a Commodore compatible SCSI controller with an external connection.

The ScanJet IIc is the first SCSI scanner to be supported by ASDG. Its user interface operates identically to ASDG's driver for the parallel port based Epson scanner family and the GPIB and serial port based Sharp scanner family. As with the other scanners which ASDG supports, two versions of the driver are included. One integrates the ScanJet IIc directly into Art Department Professional, whilst the other is a stand alone version. The integrated version allows the video user to specify a region to be scanned in terms of pixels, whilst a print orientated user can specify a region based on physical area. The user interface also allows picture aspect to be locked allowing a physical space on a page or specific screen size to be quickly and easily matched.

Contact: ASDG, 925 Stewart Street, Madison, WI 53713.

Tel: 608 273 6585.

GREEN PC

IBM have unveiled a green PC which is energy efficient. The machine uses 60W of energy compared with the usual 150W. Hooray! All our electricity bills are going to be lower.

That's of course if IBM can survive after their billions of dollars of losses. Perhaps they should concentrate on selling cheaper computers?



The hard option from GVP is down in price

GVP EXPANSIONS DOWN

GVP has announced price reductions on several products in their Amiga range. The products include the G-Lock, which offers advanced genlocking capabilities and facilities and now costs £299.00 down from £349.00 and the HD8+ - the A500 hard drive at £249.00 for the 42Mb (was £299.00), the 80Mb at £349.00 (previously £399.00) and the 120Mb at £399.00 (was £499.00).

In addition a price cut of up to £200.00 has been made on the 42Mb, 80Mb and 120Mb A530 Turbo, the Amiga 500 accelerator, RAM upgrade and hard drive. The A530 has a 68030EC processor running at 40MHz, 1Mb of 32-bit RAM (expandable to 8Mb), factory installed hard disk, high speed DMA SCSI controller, cut off switch for games compatibility, dedicated power supply and fan and a Mini-slot for future expansion. (And as we use one we can recommend it!)

The biggest reduction, however, has been made on the Impact Vision24 - GVP's popular multimedia graphics card with entry level video splitter which has come down from £1499.00 to £999.00. £500 reduction! Whew! Hurry. hurry. hurry! Get yourself a cutprice marvel or two!

Contact: Silica Systems, 1-4, The Mews, Hatherley Road, Sidcup, Kent. DA14 4DX. Tel: 081 309 1119

Mastering Amiga ARexx

ARexx is the Amiga version of the REXX programming language that Commodore has adopted as part of Workbench. **AUI's** own Paul Overaa, in his latest book, Mastering Amiga ARexx, considers whether ARexx is a replacement for Amiga Basic and AmigaDOS and covers such topics as methods for creating

well-structured ARexx programs. Also included in the book are tutorial introductions to ARexx, how to install ARexx on any Amiga and explanations of how ARexx is used to control other programs. Price: £21.95 with free software included on disk. You've read the magazine articles, now read the book!

NOVELL AMIGA OPTION

OXXI's ACS, Amiga Client Software, allows any networked Amiga to be part of a Novell Network. This ethernet OS has, say OXXI, high capacity, fault tolerant file servers with password file protection and multi-user database operations. Hydra Systems who manufactured Amiga Ethernet cards in the UK, have decided to carry the product as it complements

their existing ENLAN-DFS, TCP/IP and X-Windows range of Amiga Networking solutions. Typical ACS customers, say Hydra, are Amiga users with access to a Novell Network. A single ACS licence costs £150.00 and a 5-user licence is £350.00 ex VAT.

Contact: Hydra Systems, Red Lane, Kenilworth, CV8 1PB. Tel: 0203 47111.

CYGNUS ED UPGRADE

Cygnus Ed Professional, the award winning text editor for Amiga programmers and writers, has been upgraded to release 3.0. The new release, say ASDG, offers complete Workbench 2.0 and 3.0 compatibility, support for multiple languages as well as new features and improvements.

These include: CED's lightning-fast scrolling and text rendering on any AGA screen; multiple concurrent CEDs can be launched in separate windows or screens; a full-featured macro editor is supplied. The system clipboard is used for block operations allowing blocks to be shared with other programs and search and replace strings offer 'history' so they can remember previous values.

CED Release 3.0 carries a suggested retail price of \$119.95 (around £60). Owners of the previous release can upgrade for \$30.00 + \$5 for postage and packing. To upgrade send your original disk to ASDG.

Contact: ASDG 925 Stewart Street, Madison, WI 53713. Tel: 608 273 6585.



An Epic pack at a cheaper price

SILICA'S OFFERS

Silica Systems have announced what they claim is the lowest priced Amiga and hard drive combination. The Amiga 600 Epic packs, with a 20Mb hard drive is offered at £299.00 with the Zool pack, GFA BASIC and Photon Paint II thrown in free.

When purchased from Silica, the A600 Epic pack with 20Mb hard drive also comes with a software pack worth £267.00 free of charge. This pack includes three of the top games of 1992 - Zool, Pinball Dreams and Striker. These are complemented by a graphics package (Photon Paint II), a programming language (GFA BASIC) and a word processor (Transwrite).

Contact: Silica Systems, 1-4 The Mews, Hatherley Road, Sidcup, Kent DA14 4DX. Tel: 081 309 1111.

ColourPic NEW !



ColourPic is JCL's best selling video digitiser. Grabbing frames from a live video source in 64,000 vibrant colours is simplicity itself. If you have struggled with a colour wheel or splitter and have had to limit your video digitising to static objects or just monochrome, you will find ColourPic pure joy. ColourPic has its own built-in 64,000 colour framestore which is constantly digitising the incoming picture in REAL-TIME. Just press a key to freeze the picture and import it into the Amiga. It couldn't be easier!

NEW! ColourPic has been upgraded to include a S-VHS (Y-C) input and is now shipped with 'Cabaret' our comprehensive 24-bit image processing software in addition to the standard ColourPic software.

- * ColourPic can capture lo-res, interlace or hi-res images and convert them to HAM, 32 colour, 16 colour and monochrome IFF files.
- * ColourPic has RGB, composite and UHF TV outputs from its framestore to drive a second monitor.
- * ColourPic works with all Amiga computers, even the A500P.
- * ColourPic can be upgraded to ColourPic AniMate.
- * ColourPic has comprehensive monochrome image processing tools.
- * ColourPic is shipped with Cabaret 24-bit image processing software.

ColourPic RRP £499 inc VAT
ColourPic AniMate RRP £599 inc VAT

SuperPic



SuperPic is a framegrabber and genlock in one box! It is the perfect answer to anyone who needs all the facilities of real-time colour video digitising and the ability to combine computer generated graphics with a video source. SuperPic has a built-in 64,000 colour framestore which is constantly digitising the incoming video source in real-time. Just press a key to freeze the picture and import it into the Amiga. It just couldn't be easier! The genlock built in to SuperPic has an RGB output for the finest possible results in addition to composite output and provides the Amiga user with a very stable product, ideal for titling.

NEW! SuperPic is now shipped with 'Cabaret' our comprehensive 24-bit image processing software in addition to the standard SuperPic software and a three button optical mouse with mat.

- * SuperPic can capture lo-res, interlace or hi-res images and convert them to HAM, 32 colour, 16 colour and monochrome IFF files.
- * SuperPic can be upgraded to SuperPic AniMate.
- * SuperPic has its own built-in genlock for combining computer generated graphics with a video picture - ideal for titling.
- * SuperPic allows you to switch between Amiga display, framestore and video outputs on your standard RGB monitor at the touch of a button.
- * SuperPic is shipped with Cabaret 24-bit image processing software.

SuperPic RRP £599 inc VAT
SuperPic AniMate RRP £699 inc VAT

ColourPic Plus NEW !



ColourPic Plus, JCL's latest addition to their Amiga real-time colour video digitiser range, brings you the most powerful digitiser available to the Amiga user in its price range. A professional machine engineered to the highest standards and using the latest technology, ColourPic Plus combines all the features present in ColourPic with AniMate as standard and an impressive number of new features and new software.

The Impossible? - ColourPic Plus can do it! Combine a framestore picture in 64,000 colours with text on an Amiga database display - without a genlock! With the optional 'GrabIt' software from JCL and a prepared database control language module you can add pictures to your personnel file or parts list. Your database pictures could even be animated!

- * ColourPic Plus can capture lo-res, interlace, hi-res or hi-res with interlace images and convert them to HAM, 32 colour, 16 colour and monochrome IFF files.
- * ColourPic Plus is shipped with 512K RAM and can be upgraded to 1MB for more animation frames and even higher resolution modes.
- * ColourPic Plus can switch between your Amiga display and the 64,000 colour framestore picture at the press of a key.
- * ColourPic Plus has S-VHS (Y-C), RGB and composite inputs and provides RGB, composite and UHF TV outputs for an extra monitor if required.
- * ColourPic Plus is shipped with Cabaret Plus 24-bit image processing software.

ColourPic Plus RRP £699 inc VAT

AniMate

AniMate, for ColourPic and SuperPic, adds a whole new dimension to video digitising - colour animation. The complete AniMate package upgrades the digitiser to 512K RAM using a special RAM expansion card with time marker control logic and includes control software and manual. AniMate provides a simple and complete method of producing short sequence colour animated images on an Amiga, where the images come from live video such as a camera or a VCR. Simply point a camera at a moving object, select ANIM RECORD/SEQUENCE and press the space bar to capture a series of real life movements.

- * ANIM SET options include frame delay and first field hold off.
- * ANIM RECORD options include sequence record and single step record.
- * Select ANIM PLAY/CYCLE and the recorded sequence is repeated.
- * ANIM PLAY options include sequence, single step, mouse scroll, cycle and ping-pong.
- * Sequences recorded from a VCR may be joined together to produce ANIM files.
- * The interval between recorded fields can be set at any number of fields.
- * The individual fields of an animation may be examined by using the up/down movement of a joystick.
- * Fields from an animation sequence may be converted to standard Amiga IFF format and then built into an ANIM format file for replay.

Upgrade your ColourPic or SuperPic for £150 inc VAT

Cabaret

CABARET the image processing package shipped with ColourPic and SuperPic provides image import facilities together with colour and monochrome image processing functions to modify existing pictures. Cabaret has a wide range of filter and masking options to enhance pictures and produce interesting effects.

- * Cabaret will import and display HAM, EHB, 32, 16, 8 and 4 colour pictures plus Monochrome and Threshold images in normal and overscan modes.
- * Cabaret will SAVE and LOAD images in standard IFF format, plus a wide range of other formats including TARGA and AIM.
- * Cabaret will produce X & Y flips, mirror images, multiple images, magnified parts of an image and control colour balance, contrast and brightness.
- * Cabaret works on all Amigas with 1 MByte or more of memory.

CABARET PLUS software, which needs 3 MByte of memory to make full use of all facilities, has all the features of Cabaret - PLUS

- * Extra filters including Uniform, Kuwahara, Posterize, Median and Gamma.
- * New features including Emboss, Dropshadow and Combine.
- * Interlace and hi-res modes AND Save in 24-bit IFF!

For the user with less than 3 MByte of memory the Cabaret functions may be used without the 'Plus' features.

Cabaret RRP £29.95 inc VAT Cabaret Plus RRP £89.95 inc VAT

ColourPic, SuperPic and ColourPic Plus are available from selected dealers or direct from JCL.

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About our framestore. . .

All of JCL's video digitisers can grab a frame from a live video source in 1/25th of a second using a 64,000 colour framestore which is constantly digitising the incoming picture in real-time. The framestore displays a picture of such high quality that you may suspect you are looking at a straight through connection from the video input, but don't be deceived, this is a digital picture, just press the Z key to see it freeze! The framestore's 64,000 colour palette can be used to display previously digitised images stored on a disk as well as show Sculpt (and other) images in a much wider range of colours than the Amiga's HAM mode. The effect is stunning!

For your free show disk of pictures:-
Contact Jacky on 0892 518181



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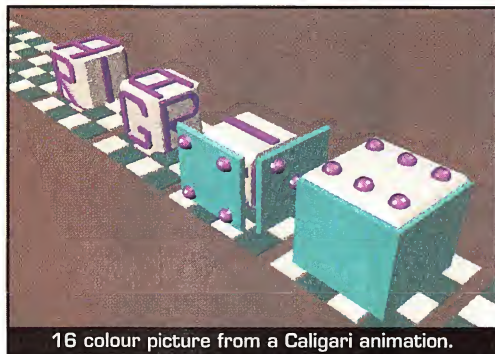


CALIGARI

The 3D world of the Amiga is littered with products. Some are fine and some are bogus in the extreme. But reading most of the press about 3D programs (including my reports), you'd be led to believe that there were perhaps only two or three. I think this is due to two things:

One; the initial impression and reviews of a new product are VITAL. If the first impression is average or bad, then most people will not persevere, even if it's upgraded or re-written. "You never get a second chance to make a first impression". Naff, but true.

Two; once a product has become established as a standard, it's hard for new products to get their foot in the door. No one wants to go through the pain of learning a whole new way of doing things, unless there's a very good reason for it. Users have to be enticed away from their loved ones by the promise of excitement and really wild things.



16 colour picture from a Caligari animation.

Caligari suffers from both of these points. When it was first reviewed a number of years ago, it had a wonderful interface and nothing much else nice about it. Since then, it has gone through numerous revisions and re-packagings. The last big one was as Caligari 2 and as the included 3D program in GVP's IV-24. But once again, there were mistakes. The IV-24 version was horribly cut down and Caligari 2 was still missing the essential elements of its £2000 big brother, Caligari Broadcast. Who the hell wants to spend £2000 on an Amiga 3D program, when you could by an entire Amiga system (hardware and rival software) for around the same price? Answer: only people who are into wickerwork and macramé.

So now what do we have? Finally, finally Caligari has come of age. The fine interface is still there and has even got better and faster. But now it's backed up by flexible and powerful (and COMPLETE) modelling, animation and rendering abilities that match and in some cases surpass most of the 3D software around today. This doesn't mean it's the best and nor does it mean that it's got nothing wrong with it. Read on...

use it

Just like most of the 3D packages these days, it takes a modular approach. Object Design. Scene Composition. Animation. Rendering.

Unlike most packages, it does have a rather different initial viewpoint. For those unfamiliar with the previous incarnations of Caligari, I'll brush over it, as it is somewhat unique.

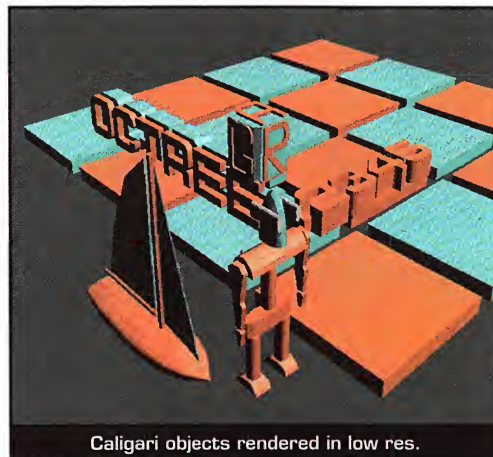
Your view of proceedings is not unlike a virtual reality view. If you hold down a mouse button and

Barry McCarthy test drives **a forceful contender for** **the Amiga 3D prize.**

move it around, the whole display zooms about in real time. A click on a button and the objects move, scale and rotate. It's great. No doubt about it, this is an outstanding interface. It's very fast thanks to excellent programming and the technique of converting objects to bounding boxes while they move about. It also operates in Hi Res by default which affords more detail and accuracy without (seemingly) loss of performance.

The controls for modelling etcetera, are at the bottom on thin, 'stackable' menus. No pull downs and no Workbench style interface. This does, I'm afraid, mean learning an entirely new interface. Bummer. If everyone used the same style of interface, wouldn't it make learning a new program so much easier? Standard requesters and mini programs such as the CBM Install program make life so much easier (as long as the 'standards' are quality, of course).

Anyway, back to what the program can actually do. The modelling side is very well catered for, with all the usual manipulatory functions you would expect. Extrude, Cut, Copy, Paste, Lathe, Point Editing and Deformation. Deformation? Yeah, this IS different and oh so cool. You take your object and surround it with a wire mesh box. Now grab the mesh, twist, pinch, pull and push it and your object is deformed inside it.



Caligari objects rendered in low res.

Absolutely outstanding. It's a bit like modelling with clay. Lovely jubbly. By the way, most modelling is built up using a collection of 18 supplied primitives although as mentioned, it can be done point by point.

Caligari also shares the 'hierarchy' approach to modelling that others do. This enables you to easily build jointed objects for animating.

I leave the modelling area with a warm feeling. Very nice indeed.

cracking

When designing objects, they are always loaded into the world centre. This is because that editor is JUST for modelling. When you want to set up a scene for rendering or animation, you move to the Scene Composition and Animation modules. Now load your previously built objects and arrange them on your stage. It is also from here, via sub modules, that you add lights, assign textures and brush wraps, add background and foreground images and perform a QuickRender. (This is a very fast but very basic 16 colour image without any textures etc).

It's all fairly simple really, until that is, you want to add textures or do a full BroadcastRender. Now things get fiddly and complicated. I think that it may become more straight forward after more practice but I found these modules to be missing the logic and simplicity of the Object Design and Composition stages.

It must be pointed out at this stage that Caligari is NOT a ray tracing program, it is a solid modeller. This makes rendering much faster but does not allow such rich or flexible images. Not to say that they are not impressive, they are.

When you have mastered rendering, you might want to experiment with a bit of movement. Previous versions of Caligari have been somewhat lacking in the rendering and animation departments but Caligari 24 has started to put this right. There are still holes and limitations that basically revolve around lack of flexibility but the essential animation system is quite nice and clean.

Position an object, press SET, reposition it later in time and press SET again. It's as easy as that. It doesn't take long to set up quite complicated movements and there are some really nice touches. Firstly, everything is represented on a TimeLine system which makes a lot of sense. Secondly, and I like this a lot, when you have set up several key frames for an object, the path that it travels is represented by a line. Yeah? Well now you can automatically smooth the line into curves like a spline path. This is something I WISH Imagine had. Excellent.

good or bad?

Well it's pretty good actually. If you are new to 3D, then the interface is wonderfully intuitive and fast, and the animation system is very understandable.

These might also be reasons to use Caligari if you need to produce fairly straight forward commercial animations quickly.

24

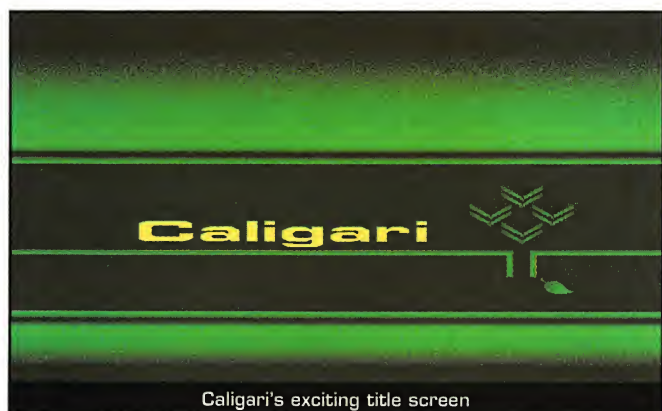
Caligari is now a COMPLETE 3D modelling and animation package which is well worth looking at.

BUT, I still seem to be thinking that it's a nice interface but...

NO, no, no, it IS a good program, it's just that it lacks the flexibility and openness of others such as Imagine and Real 3D. Yes, openness. Caligari totally locks out the Amiga operating system and all other software. I hate this. What about AREXX, batch processing with ADPro or ImageFX? What if you need to render a massive animation in 24bit but convert to JPEG? Ah well.

Hundreds of people in tens of companies spend years hard at work on the standardisation of a multitasking environment. Get used to one program and you'll be used to them all. Well, at least the interface won't seem so threatening.

Caligari 24 has none of this. The interface is totally unique and totally non-multitasking. It's an alien environment that takes an entirely new approach and many weeks of careful manual reading. The trouble



here is that although the manual does include reference to everything in the program, it doesn't actually help you to get used to it. There are a few tutorials where there should be many. There are no tutorials on scene design, animation or rendering. These areas are the areas that have received the most amount of work and are the most awkward to get used to. Rendering is especially confusing.

There is, however, a video. This is a quick tour by a sexy American voice of all the menus and modules and some fine examples of animations. A video is a good idea but I still need MORE DETAIL. There are areas that need so much more by way of tutorials and DETAILED references. Never mind. This always seems to be THE MAIN FAILING in all 3D programs. Look at Imagine's manual, on second thoughts, don't bother.

Last comment? OK, a worthy contender in the 3D market place, well worth a look but it's not going to win first prize. **a**

INFO

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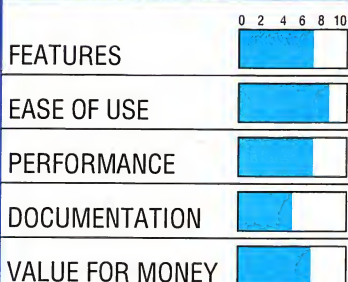
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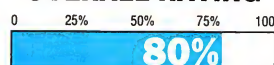
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test drive ONE STOP

Andrew Gould test drives Blue Ribbon's latest

The One-Stop Music Shop is a Zorro II card that fits neatly inside your Amiga A1500/2000/3000/4000, providing an internal General MIDI synth module, CD quality 16 bit stereo sound and a MIDI in/out port. It also has a suite of powerful software tools to integrate it completely within your Amiga environment. Blue Ribbon describe it as "a high fidelity orchestra right inside your Amiga", and have targetted it primarily at the desk top video/multimedia user.

For those unfamiliar with the world of MIDI but who wish to improve the sound output from their Amiga, it is essential to understand that whilst the One-Stop Music Shop offers CD quality stereo sound, far superior to that provided by the Amiga's own custom sound chip Paula, it is not a replacement for Paula. Fitting the board will not suddenly transform your Amiga's internal sounds; you cannot simply play normal Amiga sound files

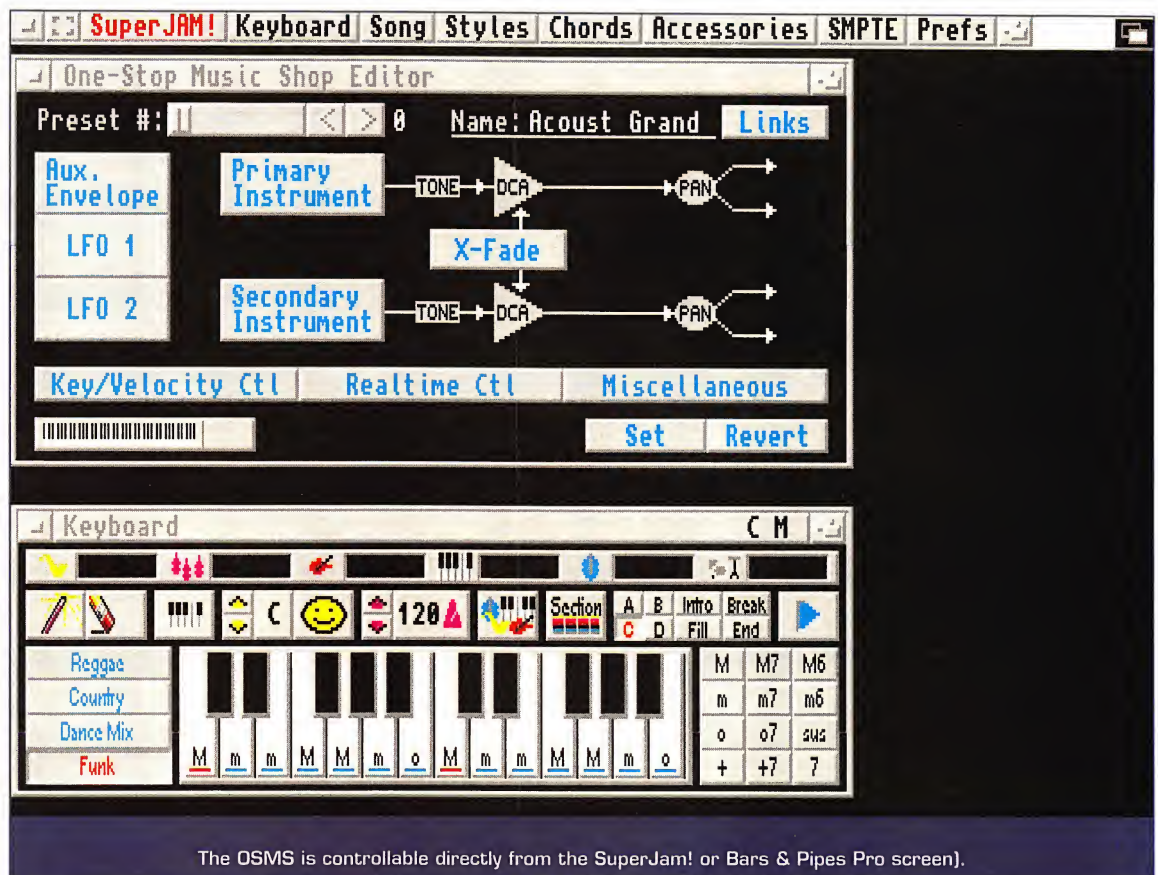
(Soundtracker etc) through the board and transform them to CD quality. Rather it provides a source of very high quality sampled sounds that may be manipulated with the bundled software and used in conjunction with such products as Bars & Pipes Professional and SuperJam! to create very

For desk top video and multimedia users the One-Stop Music Shop is literally music to the ears. The arrival of the AGA chipset for the Amiga introduced superb new graphics modes, but the audio capabilities were not enhanced. While the standard sound output isn't bad, that from the One-Stop Music Shop is superb, at last enabling you to incorporate MIDI-based CD quality stereo music into your productions.

For someone who wishes to explore the world of MIDI the One-Stop Music Shop removes the need to purchase external modules, and to integrate a MIDI system neatly within their Amiga environment. Furthermore because it conforms to the General MIDI standard as well as the Multimedia PC (MPC) specification, you may author MIDI material that can be transferred easily to other systems.

hardware

The One-Stop Music Shop is based on the Proteus module, employing the E-mu G1.5 proprietary DSP chip giving a 20Hz - 20kHz frequency response. The card has two standard line level RCA connectors for stereo audio output, with a nine pin D connector into which the MIDI in/out cable adaptor fits. Installation



The OSMS is controllable directly from the SuperJam! or Bars & Pipes Pro screen).

is straightforward, though the card has a daughterboard so if other slots in your A3000/4000 are occupied you will probably need to rearrange the cards.

The SoundEngine has 32 voice polyphony, which means that it can respond to all 16 MIDI channels simultaneously in stereo. The 4 megabyte ROM stores 213 very high quality 16 bit samples waveforms, arranged in 192 preset locations. The first 128 are arranged as per the General MIDI standard, with the remaining 64 as drum kits. The General MIDI specification reserves channel 10 for drum kits, so the chosen drum kit will play through this channel. However, if you are not bothered about adhering to the General MIDI specification you can modify any of the Presets and create new instruments using any of the samples and modifying them as you wish with the powerful One-Stop Editor.

software

The software is installed by dragging the disks contents into the appropriate drawer on your hard drive. I was a little surprised that Blue Ribbon do not use the recommended Commodore installer utility since this now

appears to be standard for most software. A demonstration disk for SuperJam! 1.1 is also included, Blue

Ribbon's interactive music composition software (reviewed in AUI May/June). SuperJam! is transformed by the One-Stop Music Shop, hence the demo disk.

The bundled software comprises the MIDI File Player, One-Stop Editor, One-Stop Tools, PatchMeister SoundEngine Driver, One-Stop Control Panel, Accessory and Loop Back.

The MIDI File Player performs standard General MIDI files through the One-Stop's hardware. It may be launched from Workbench, and files with a .MID extension loaded via a standard file requester. The MIDI file player also functions as an AppWindow under Workbench v2.04 and above, so .MID files can also be loaded by simply dragging and dropping their icons into its window. It is ARexx controllable, and a very simple demonstration ARexx script is included. You may decide to edit this to include your own files or write you own script to play MIDI files via the SoundEngine from any ARexx compatible program, invaluable for multimedia and desk top video applications. Furthermore the file player can be synchronised with an external SMPTE time code

source using the included MTC Sync program and Blue Ribbon's SMPTE to MIDI Time Code converter SyncPro.

The One-Stop Editor is a powerful program that enables you to design your own presets giving you almost unlimited flexibility in creating your own instruments. It may be launched either as an independent program, or as an accessory from within Bars & Pipes Pro or SuperJam! to prevent undue screen-swapping whilst creating your musical masterpieces. There are 192 presets arranged in two banks, any one of which is selectable at one time.

The editor can appear rather daunting at first; numerous buttons with button labels that won't mean very much to the MIDI newcomer. At the bottom left of the window is a representation of a keyboard which when clicked with the mouse plays a note. This is very fiddly, so a MIDI keyboard is highly recommended. The manual is fairly good, and you will be manipulating and creating new instruments before you know it.

The window provides a graphical representation of how the SoundEngine generates the sound for the preset. There are two instruments, a primary and secondary. Clicking the Primary

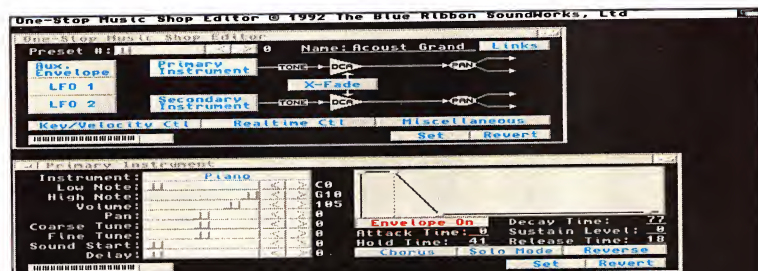
OP MUSIC SHOP

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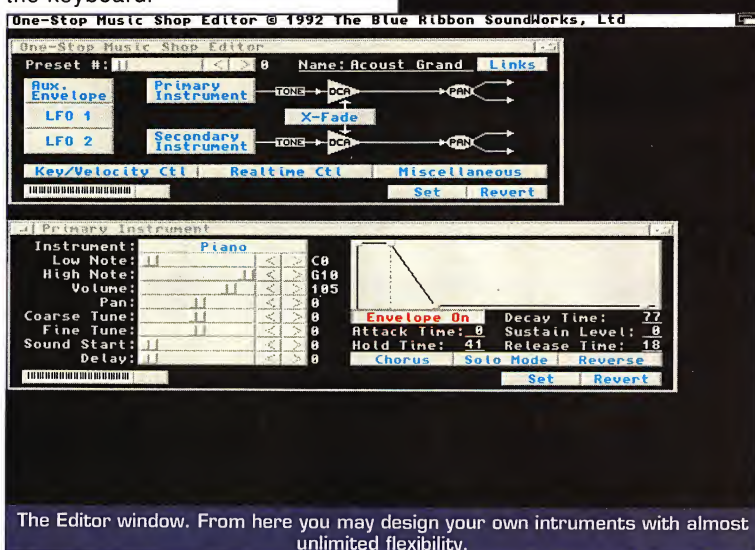
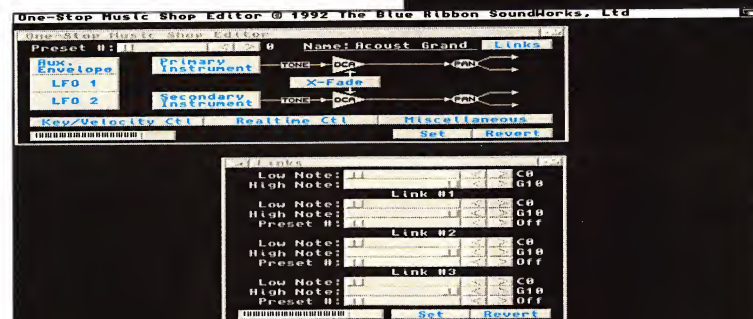
Instrument button brings up another window that displays characteristics for that instrument. You may select any of the 213 included waveforms, and then manipulate its characteristics in all manner of ways to produce the desired result. It may then be combined with a second with the same degree of control, and the two mixed together with great flexibility. For example, one instrument can simply be blended into another to create a new one, one fade gradually into another, play one instrument when the keys are pressed lightly, another when pressed forcefully, and so forth. Once you have chosen your instruments, the sound for that preset can be further modified using a variety of modulation sources, from the simple to the complex. For example setting a vibrato, the amount of which can be controlled by how hard you hit the keyboard.

Amiga serial port since the One-Stop Music Shop integrates directly with these programs.

You can use Bars & Pipes Pro to sequence your music and produce MIDI files for use by the One-Stop MIDI file player. However, Bars & Pipes Pro is far more than just a powerful MIDI sequencer, it also a powerful multimedia tool, able to synchronise all manner of events accurately to time code such as Scala scripts,



This window enables you to define the characteristics of your chosen instrument.



The Editor window. From here you may design your own instruments with almost unlimited flexibility.

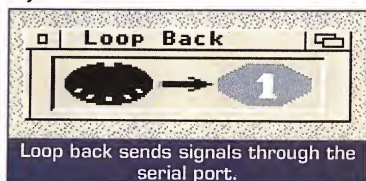
If you have been unable to create the instrument sound you are after with the primary and secondary instruments it is even possible to link up to three other presets together with the preset you have just created, using the Links window. Once you have created your own presets these can be saved to disk and loaded at start-up automatically.

The Loopback program is an invaluable utility that allows you to use the One-Stop Music Shop as a stand-alone MIDI synthesiser with your MIDI keyboard, or controlled by Amiga MIDI software from companies other than Blue Ribbon, such as KCS, Music-X or even OctaMED via a MIDI interface connected to the Amiga's serial port.

If you use either Bars & Pipes Pro or SuperJam! you will not need Loopback and can free your

video decks, the SunRize boards, and the Video Toaster.

For SuperJam! users the One-Stop Music Shop is a joy. The program automatically directs its output to the SoundEngine thankfully replacing the "TurboSounds", transforming it out of all recognition. It also automatically frees the Amiga's serial port since it uses the One-Stop's internal MIDI port instead. It supports the General MIDI presets in every style, automatically switching to the appropriate instruments when you change styles.



Loop back sends signals through the serial port.

The ARexx controllable MIDI file player. Enables MIDI files complying with the General MIDI specification to be performed by the One-Stop Music Shop.

drawbacks

I don't like the standard Blue Ribbon software interface very much, but Blue Ribbon are well aware that it is not all it could be and is apparently redesigning it. The Editor can also be somewhat daunting at first for the newcomer, but a little experimentation goes a long way.

The only major problem I found was using it in conjunction with GVP's multipurpose IV24 graphics



The One Stop Midi file player

board; it doesn't work! I originally installed it in my A4000 which has an IV24 and CBM A2232 multiserial card. The instruments "stuck". Removing the IV24 cured the problem. I transferred the IV24 and OSMS to my A3000, and the same problem occurred. I believe the problem lies with the IV24, and have informed both GVP and Blue Ribbon.

conclusion

I have very much enjoyed using the One-Stop Music Shop and recommend it highly, in particular for desk top video/multimedia applications (unless you use an IV24!). It represents excellent value for money, but bear in mind that to take full advantage of it you will need to use Bars & Pipes Pro or SuperJam! **a**

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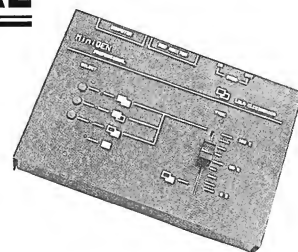
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Sunrize

If you wish to sample sounds there are a wide range of very inexpensive (under £100) sound samplers, but they are restricted to the internal 8 bit resolution of the Amiga. Though it is possible to record fairly reasonable quality samples, this is totally inadequate for professional applications such as video or CD mastering. What is required is a stereo sampler that supports at least 16 bit resolution and a sample rate of 44.1kHz, equivalent to that of Compact Disk players and DAT recorders.

The AD516 card/Studio 16 software combination from Sunrize Industries is such a device. It supports 16 bit stereo sampling at rates between 5.5 - 48kHz, up to eight tracks, and is able to be synchronised to an external SMPTE/EBU time code source or generate its own internally. It is the big brother to the SunRize AD1012, the 12 bit mono direct-to-disk card released a while ago designed primarily for the semi-professional or industrial video user who requires better sound quality than the standard Amiga can deliver. Atari, Mac and PC users have had 16 bit stereo direct-to-disk recording systems for a while now, and until the advent of the AD516 the Amiga has been the poor relation.

installation

The card fits in a spare Zorro slot of an Amiga A2000/3000/4000. If you are using an A2000 you will need

an accelerator if you wish to edit using eight tracks. I installed the card in my A3000 which has 2 megabytes of chip and 4 of fast RAM, together with a large hard drive with a separate partition for samples. This separate partition is essential since direct-to-disk recording is very hard disk read/write intensive. If you use the same partition as that used for all your software and data files, these may well be lost should it develop a read/write error (which it almost certainly will).

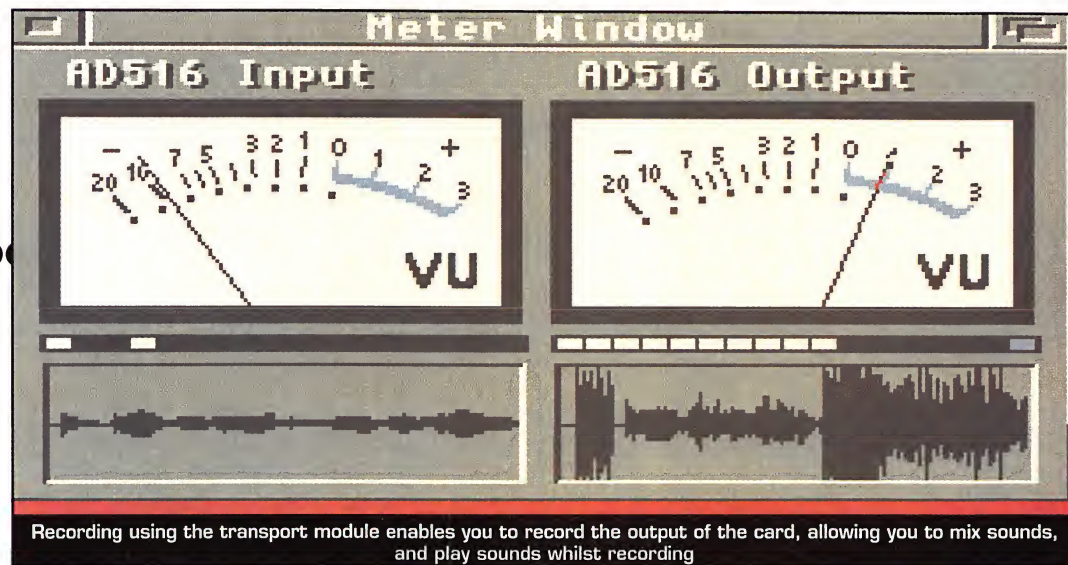
One minute of audio will require approximately 5 megabytes of disk space per track when sampling at 44.1 kHz (and therefore 10 Mb for stereo), so you must have a large fast hard drive for any serious work.

Gigabyte drives are now available for around 1000 or so, and this is the size of hard disk you will undoubtedly need to consider. The manual maintains that it is possible to work from slower drives such as magneto-optical or Syquests, but you will need to lower the sample rates and work with fewer tracks.

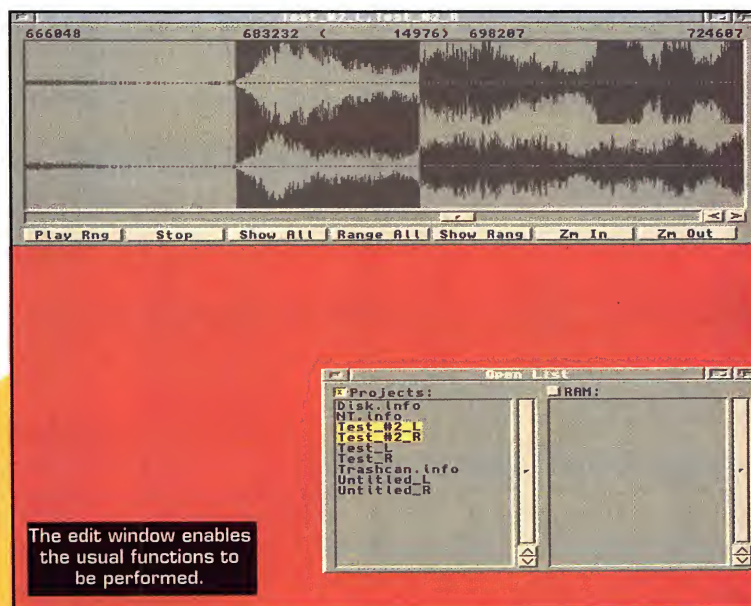
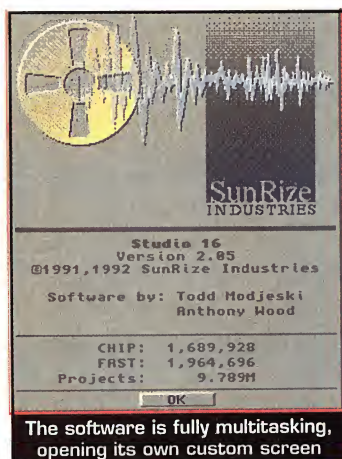
The card interfaces to your peripherals via a pair of gold-plated stereo RCA connectors for audio in/out and a fifth RCA connector for an external SMPTE source. Unfortunately,

there is no SMPTE out, although for most this will not be an issue. The audio inputs are at line level and unbalanced, so you will need to use adaptors for connecting balanced XLR lines. Microphone inputs will need to be fed via a mixer to convert the signal to line level.

The Studio 16 software is installed from floppy using a custom SunRize installation script. The software must be installed onto the



At last, the sun also rises on 16 bit stereo sound for the Amiga. Andrew Gould reviews the final version of a long awaited product.



root directory of your selected partition, which should, of course, be separate from that used for the samples themselves.

The manual supplied with the review card was not the finished version; apparently that is still at the printers! Nevertheless I was quite impressed since it provides a useful summary of the important issues in digital recording relating to the AD516, and has an appendix written by a professional audio

engineer who explains how Studio 16 and the AD516 may be integrated into audio post production for film and video. You are even invited to contact the studio for any help or advice, but unfortunately it is in Norway!

modules

The software is fully multitasking, opening its own custom screen (see

Fig AD516_screen). The software has a plethora of features and is separated into modules. This is a neat approach since you only have to have those that you need displayed, helping to preserve memory and prevent the screen becoming cluttered. Modules may be launched from the Application

The CueList and SMPTE generator are two modules that are indispensable. The CueList enables you to sequence a series of samples and synchronise them perfectly to SMPTE time code. The list may be triggered by an external source, either an external time code generator or audio/video tape

AD516

Menu, keyboard shortcuts or, if they have been already been loaded and their window closed, recalled from the Instance module.

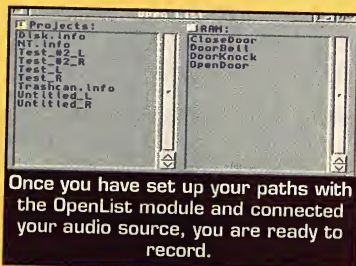
Once you have set up your paths with the OpenList module and connected your audio source, you are ready to record. To do this you can use either the Record or the Transport modules. If you use the former, you then open the Meter module which enables you to monitor the input, output and any of the eight tracks. The meters emulate the standard VU type, together with a digital and graphical representation of the signal. These options can be selected in any combination. Recording using the transport module enables you to record the output of the card allowing you to mix sounds, and play sounds whilst recording.

effects

Once you have recorded your sample it can be named then edited. The editor provides the usual features; mark a range, copy and paste, zoom, and so forth. The sample may be faded in or out, and various effects applied including echo, Fast Fourier Transform, Resample and much more. Multiple edit windows may be opened to cut and paste between samples.

Once you have edited a sample it may be saved and converted to any one of the following formats; AIFF, IFF-8SVX, RAW and CDTV RAW.

Apart from the effects that can be applied to recorded samples, Studio 16 is able to apply a variety of realtime effects to live audio input using the RealtimeDelay module for those who may find this useful.



Once you have set up your paths with the OpenList module and connected your audio source, you are ready to record.

integration

The AD516/Studio16 can be integrated with Bars & Pipes Professional, the sequencer from

Blue Ribbon Soundworks. This turns your Amiga into a complete music and audio production environment. Four modules are supplied that

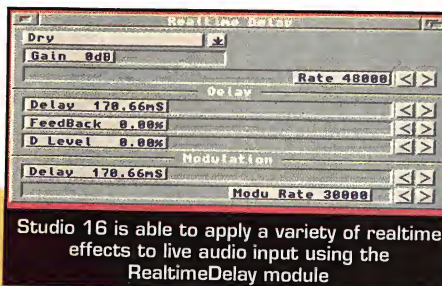
enable you to synchronise your MIDI composition with SMPTE via the SMPTE input on the card, cue samples played by the card with MIDI notes for sound effects synchronised to music or video,

striped with time code, or the AD516 internal SMPTE generator controlled by the SMPTE module. The Cue List may be built by simply dragging and dropping the name of the sample files from the OpenList requester into the CueList window, or if you really want to via a text editor.

The software is ARexx controllable, and a sample CanDo deck and ARexx script are included to demonstrate how such control can be achieved.

access all the Studio16 features and windows via the Bars & Pipes screen, and have a virtual track to record and replay samples in sync with the MIDI tracks.

The card may also be integrated with the soon-to-be-



Studio 16 is able to apply a variety of realtime effects to live audio input using the RealtimeDelay module

released-and-promised-for-ages Digital EditMaster board from Digital Micronics. Using SMPTE time code audio and full frame full motion video can be digitised and edited simultaneously. Let's hope the EditMaster does arrive soon.

SunRize also include a leaflet with the AD516 describing the DD524, a digital audio input/output board. This is not yet available, but will permit you to transfer digital data to and from the AD516. You will therefore be able to transfer audio recorded onto a portable DAT recorder in the field and transfer it to your hard disk without any loss of information that otherwise will always accompany the analogue to digital conversion process. Similarly you can back up your hard drive

direct to DAT. The transfer rate is much higher than conventional backup tapes, and a single DAT can hold over 1 gigabyte of data.

conclusion

The SunRize AD516/Studio16 combination at last provides 16 bit stereo direct-to-disk recording with eight track facility suitable for professional video and audio CD mastering for the Amiga. It is highly recommended and represents excellent value for money.

Whether or not it will tempt audio engineers to use an Amiga system rather than a Mac remains to be seen, but it is bound to find favour in professional video companies that already use Amigas. Furthermore because it can be integrated seamlessly with Bars & Pipes Professional it will be of great appeal to the professional multimedia/presentation designer and MIDI musician. The arrival of the promised DMI EditMaster and SunRize DD524 can only enhance the appeal of this superb product. Just remember that you will need a powerful Amiga and extensive hard disk storage to take full advantage of it. **a**

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IS THIS WHAT THE AMIGA WORLD
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SILVER DREAM MACHINE

Commodore's brand-new Amiga CD32 console style computer is far superior to any comparable machine on the market today. Here's what it looks like, but what makes it so special? Ashley Cooper-Cairns investigates.

POWERHOUSE

The Amiga CD32's heart is the Motorola 68EC020 processor. It's the same 32-bit CPU that sits proudly in Commodore's other now sub-£300 beast, the A1200, the world's lowest price computer.

MEMORIES...

The Amiga CD32 carries 2MB of RAM, which will be expandable up to a huge 64MB. There's also 1MB of FLASH RAM which will store, without needing a current, high-scores, saved game positions and other brief info.

GOING AGA OVER THE GRAPHICS

As with all other Amigas, Commodore has enlisted the help of custom chips to take the responsibility for graphics handling away from the CPU. The two lovely chips are Lisa and Alice and they can handle 256,000 colours out of 16 million. A veritable rainbow machine.

SOUNDS GOOD TO ME

Sound is taken care of by Paula, the third of Commodore's custom chips. By taking processing of sound and graphics away from the CPU, the Amiga CD32 is much faster than it could be without the special hardware and the quality is hifi.

A LITTLE CD

Aside from the sort of sound you're going to get from games, you'll also be able to drop in audio CDs and play them with true CD stereo quality sound. For best results, link up to an amplifier and speakers using the built-in stereo audio jack. Games will be able to take advantage of the CD quality audio - Pinball Dreams already has. And so will all forms of video and music programs.

MOVIE MAKER

Full-screen, full motion video will be available on CD32 owners before very long, with the introduction of Commodore's MPEG board. Up to 74 minutes of VHS quality movies and CD sound will be available from a single CD. The price of MPEG board is expected to be around £129.00.

INTERACTIVE MOVIES

Games such as Virgin's 7th Guest (on PC only at present) will take advantage of full motion video - and later on, complete films

MEET



will be released on CDs of possibly 1.2 gigabyte big – that's 150 minutes long. The music video and CD single of a record will be able to appear on just one CD, too.

GAMES, GAMES, GAMES

Many big names in the games software world are lending their full support to Amiga CD32. Why? Well, CDs cannot be easily or cost-effectively pirated, nor infected by

viruses. They are more difficult to damage (the drives or magnetic fields won't corrupt them, for example) and cheaper to produce.

THE MORE THE MERRIER

Commodore has predicted that 72 titles will be ready before Christmas from names such as Ocean, Mindscape, Millennium, Renegade and Psygnosis and some other more serious programs like Optionica's Insight series.

KILLER PRICE

An audio CD player, a 32-bit, CD-based games console. A full-screen, full-motion video player (with MPEG). What price would you put on a system like that? Commodore managed £299.99 – with more stable currency markets, we might have seen an amazing £199.99 price tag on it. Thank Norman Lamont for costing you an extra £100.00 when you go to buy one.

THIRTY SOMETHING

Thanks to the relative cost saving of producing just one CD per game instead of a pile of floppies, software houses should be able to manage a price of £20-30 on average per game. More serious programs shouldn't cost much more.

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Multimedia

93



Techno-tourist, Michael Rumbelow takes in a Show where the future is already splitting into a whole range of present day excitements.

Of many, one concept of Multimedia' seems to be the name of the game in the computer industry at the moment, and with the appeal of multimedia spanning education, business and entertainment, the recent Multimedia '93 'gathering' at Earls Court had a distinctly inter-tribal atmosphere. The 3-day event was buzzing with a mixed crowd of corporate businessmen, arty media people, and educationalists, with a healthy smattering of techno-tourists besides - all there to sample the various blends of video, text, and sound on aggressive offer. Almost a hundred exhibitors were there, showing off the latest in

everything from video-grabbers, photo-CDs and touch screens, to fully interactive multimedia games and education packages, tools for using video, and a brand new video-conferencing package, as yet only for Macs and PCs. Even the sometimes publicity-shy Amiga was represented, supporting the excellent VideoPilot video editing system. Running alongside the exhibition was an intensive programme of seminars about the implications of Multimedia, which I popped down to, in order to find out from the experts what was going on.

For uninitiated to the reality of Multimedia, which is still most people in the country, the seminars certainly provided a full strength dose. All the angles seemed to be covered, from •

• corporate training and business presentations, to multimedia in schools, shops, pubs, publishing and the home, and the programme finally came to a climax with a fully interactive demo of the latest in video-conferencing, using cameras like those terrific little ones they stick on the wing spoilers of racing cars. Weaving your way to the seminars through crowds of corporate suits with glazed eyes and 'What can it all mean?' expressions, it was worth pausing to reflect on what exactly multimedia is, where it came from, and why it is making so many waves in the computing

binary code. Hence numbercrunching and word-processing were the first big applications of computers. Pixelized design is also quite straightforward to process digitally, so games and graphics soon followed. Video images and live sound, however, are much trickier to convert into digital code, and it takes a phenomenal amount of 0's and 1's to represent just a few frames of video or a few seconds of sound. What has happened recently is that better and cheaper ways of storing digital information have become available (like CD-ROMs and

under £200, helping gradually to bring CD-ROM closer to the home market.- The Philips CDD-521 CD-ROM recorder or 'CD-R' is now available for under £5000, allowing you to record 'once-only', onto CD-ROM. - The Asterix and Son language learning program (£79) is one of the best on offer - you see the cartoon scenes while hearing the parts spoken by actors. You can also take the part of Asterix and record your own voice, to compare it to the original. Of

just under £2000. - Last but not least, the VISIT videoconferencing system was launched this show, giving live (black & white) video and audio communication on PCs and Macs over the ISDN network, as well as file transfer and 'whiteboarding', for just over £3000 per installation.

Low Tech!

Onto the seminars, and it has to be said that in an event devoted to futuristic

The overall mood of the show at Earls Court was of an industry accelerating fast with no-one at the wheel.



There were even seminars to tell you exactly what the show you had visited was about

and communication industries.

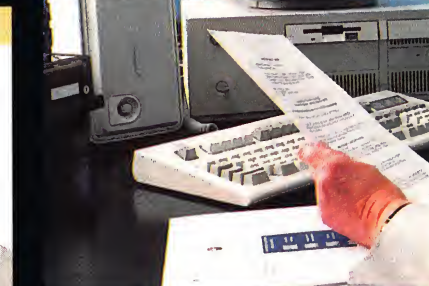
Until early this century there were books, photos, films, sound recordings and animation but the available "technology" made it hard to mix them together. With each technological development, though, the various media began to fuse. First, photos appeared in books and newspapers. Then films were produced with soundtracks, and later with subtitles. By the time the French sub-titled version of Mary Poppins came out in the 60's, you had colour film, speech, text, music and animation all together in one package. Since then digital computing technology has taken off, and people have found ways of translating each of the old media into zeroes and ones so they can be processed by computer chips, and stored digitally in computer memory.

The easiest medium which did this was numbers and then text, because the alphabet was relatively simple to represent a s

hard-disks), as well as more efficient ways of processing it (using digital compression techniques) and easier ways of handling it (software specially written for manipulating images and sound). The upshot of all this is that it's now feasible to squeeze video and sound through your beleaguered PC or Amiga, as well as text and numbers, and this is what Multimedia is all about. 'Interactivity' is simply the idea that because it's all going through a computer, the user can affect what video or text comes up next.

The overall mood of the show at Earls Court was of an industry accelerating fast with no-one at the wheel. For an impression of the state of affairs, here is a brief selection of some of the choicest items on offer at the show:- The VideoLogic MediaSpace card is probably the best value videgrabber available for the PC at the moment. For £379, you get flicker free, 16-frame a second video, which you can manipulate within Video for Windows.- You can now buy a Mitsubishi CD-ROM player for

course, it came out on CDTV and will no doubt emerge in the new Amiga CD 32 format.- The beautiful ErdSicht application, made for the Bonn Arts Centre, gives you the impression of gliding around the world at satellite altitude, and lets you dive down to various sites to see what's going on there ecologically. Great fun.- Microsoft Musical Instruments is a photographic and audio guide to over 200 instruments from around the world, with 1500 playable sound samples, and over 1000 pages of pictures and information about instruments and ensembles. - Seventh Guest is a state-of-the-art 'interactive Drama' which lets you wander round Stauf's haunted house, meeting talking ghosts and ghouls. Oddly not yet promised for Amiga CD 32.- VideoLogic had a portable projector you can shine on a wall, which must be better for your eyes than a TV screen, for

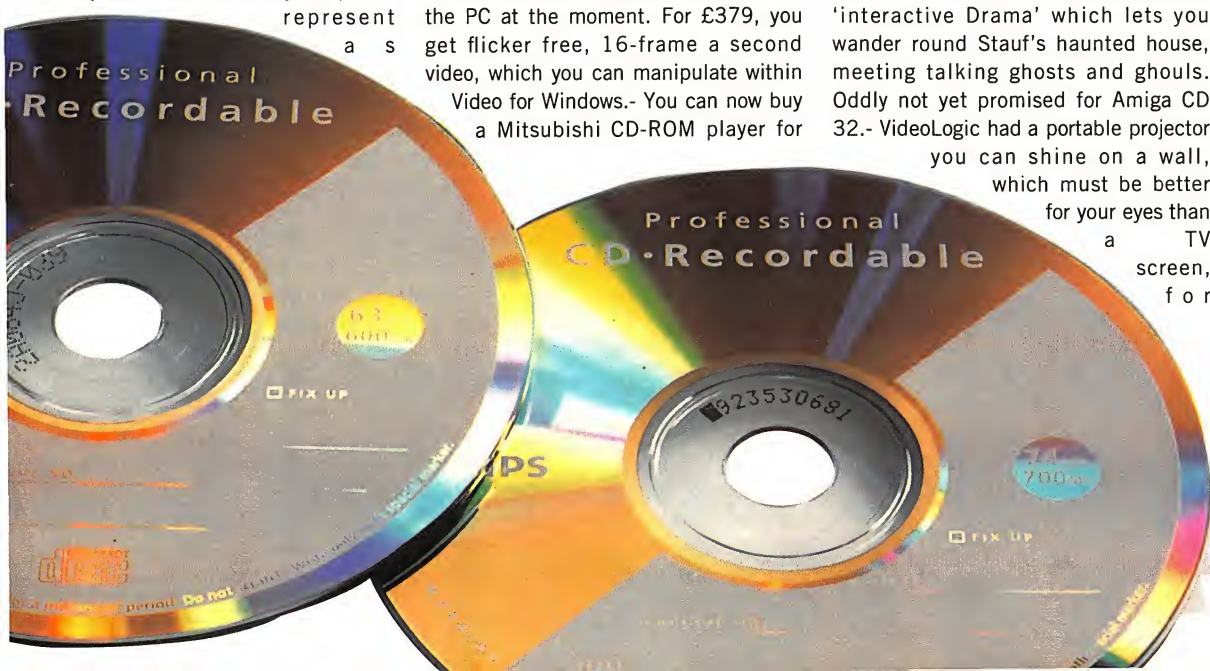


Videoconferencing the Picturatel way

multimedia technology, the organization of the seminars provided a surreally low-tech backdrop. There was a tropical heat in the packed, unventilated seminar room, several of the speakers had to struggle with dead microphones and unexpected melodramatic lighting changes. And some, for lack of a table for their PC, had to bob up and down to the floor like potatopickers. Not very impressive in a high tech business. All this sometimes made talk of future technology seem fanciful, but nevertheless most of the speakers managed to give some expert views on the avenues opening up in the rapidly developing multimedia industry.

Corporatetraining - Multimedia's foot in the door

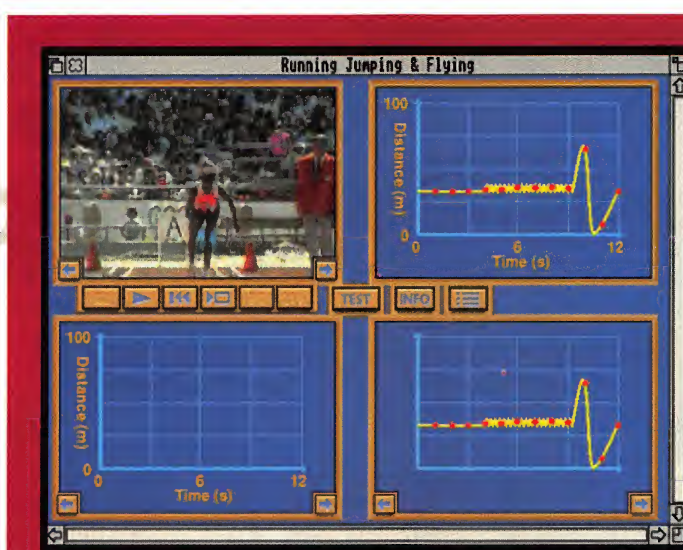
Corporate training videos may not be the sexiest side of multimedia (see the large range of 'adult' CD-ROMs, or



'Seedy romps' as one series is entitled), but have so far been the meat and potatoes of the multimedia industry - something people have actually managed to make money out of - accounting for over two-thirds of all interactive video applications. Chris Hope kicked off the seminar programme with 'Double Check', the interactive laserdisc video his company made for training B&Q checkout staff. The idea of the video sprang from the troubles B&Q were having with checkout errors and credit card fraud. It turned out that all the paperwork associated with credit card sales was causing checkout staff unnecessary stress making them more error prone, and so probably more grumpy to customers. Better training seemed to be a solution, but good trainers cost a fortune, and a lot of the



staff worked part-time and outside normal working hours. Step forward multimedia interactive video and the nifty 'Double Check' package that staff could work through at their own pace in an hour or two on Saturday afternoon. In it you get to work through various acted-out cash till situations and try to guess the correct multiple-choice response, for instance - No code on the item? Do you trust what the customer tells you ('It's 13.95, I wouldn't try to diddle you. They call me Honest Joe'), ignore the customer and call for assistance, or



Leaving The Age of Metal

The analogy of the car cropped up again and again, and was in fact strangely recurrent throughout the seminars. The general idea seems to be that the car is one of the last icons of a kind of 'age of metal' we are coming out of, which included railways, planes, reinforced concrete and industrial machines. Multimedia is supposedly a step towards a nebulous new age of something no-one can put their finger on, but which according to pundits in the computing and telecommunications industries, will involve a lot of computers and telecommunications technology. Tynm Lyntell of Line TV gave the car as an example of a system of transport whose design has been improved over the years to make it increasingly easy, safe and fun to use. He suggested that multimedia, fused with telecommunications technology would effectively be the transport system of the future, and should be designed as such.

politely explain that you need to find the correct code for the stock control system. The more correct answers, the higher the score you get, until you have 'passed' the training programme. B&Q estimate that they have saved about £6000 a month on errors and £13000 a month on fraud since they introduced the system, for a cost per trainee of £15, which pleases them, and they have surveys showing that 'customer satisfaction' has gone up too.

Public Access

TWIN is a two-way interactive entertainment network which was pioneered in America to make watching the baseball coverage in the local bar that bit more interesting. Via a special console in the bar, you could send requests for extra information about the match - like batting averages, past match results etc. - to be cabled to your bar TV. The system has now caught on in Britain, operating in Whitbread pubs up and down the country, and Mike Barnard, managing director of Whitbread's TWIN network, gave details of the system and where he thought it was going.

The TWIN system uses the BBC's 'datacast' broadcasts of sports and news coverage which are picked up at the pub via a PC. This controls the TVs in the pub, and responds to the remote control 'playmaker' consoles which are what the customers use to interact with the system. These consoles are about the size of a small lunchbox, (made bigger than technically necessary so that people don't walk off with them), and

have a basic keyboard on the top. Entries typed into the playmaker, like the name of your trivia quiz team, are transmitted to the PC, which in turn transmits the information from the whole pub via landline to TWIN headquarters. The TWIN HQ is connected to the BBC datacast service, and so the interactive cycle is complete (albeit circuitously).

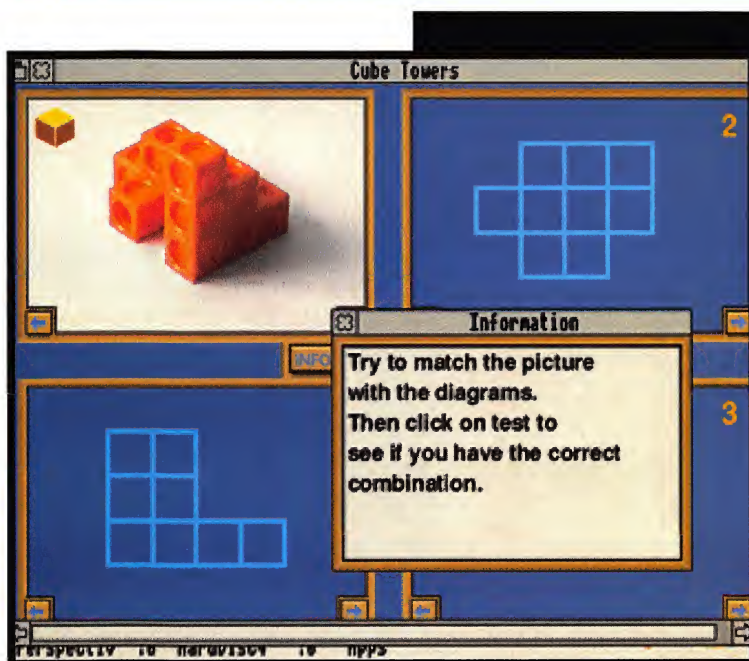
As well as extra sports event information, the TWIN system also creates such things as nationwide trivia quizzes and polls. With quizzes, each team round a console keys in its name (rude words are checked for and disallowed automatically), and the network-wide question comes up on the TV - the first team with the right multiple choice answer gets the most points, and moves up the on-line scoreboard, where each team can see where it is in relation to every other team playing in the country.

Similarly, Whitbread can conduct

national pubwide polls with almost instant feedback on issues like whether Major should go after the last budget (Whitbread punters said yes), whether Graham Taylor should go after the USA match (Whitbread punters said yes), or what party should be in power (the TWIN poll predicted the last election to within 1%). Although the system is free to customers, Whitbread reckons it has paid for itself in the extra 20% of customers who come in to play TWIN, and the 40% who stay longer because of it. Apparently both the Kentucky State administration and the Mexican government have expressed an interest in using TWIN in schools, for state-wide lessons with the possibility of asking questions. Not bad for what is really just a sophisticated version of Ceefax. It has certainly introduced a wide audience to the delights of interactive TV and wide-area network communication, as well as giving a taste of what on-line democracy might be like.



He saw growing demand for cheap photo libraries, who didn't charge as if every photo was going on the cover of Vogue.



• Replace shops?

If you have been down to Woolworths in Hounslow in the last few weeks, you will probably have seen the very latest in interactive multimedia shopping, installed in May. This is a unit about the size of a fruit machine with a touch screen display on the front, which allows you to browse through over 15000 music and video titles - for every title it will display the cover and the list of contents, and many cases will give you a relevant snatch of music, or clip of film. You put the ones you want in your 'virtual' shopping basket on screen, and when you are ready the machine prints out a receipt which you sign and pay for at the cash desk. The goods are then delivered, free of charge, to your home, normally within a couple of days. Woolworths were having problems with stocking a wide enough choice of things in their smaller stores, which are often the only places for miles where people can buy videos or CDs, and with the new mail order system they can give people the wider choice, while stocking everything in a huge central store.

The unit is based on a 486 PC with 3 gigabytes of hard-disk memory and a VideoLogic MediaSpace card to compress the video and sound, which make it about £7000 per unit. At the moment they are stand-alone, as any updated information about the videos and music has to be put in on site in the back of the shop, but Woolworths have plans to put them all on some kind of updatable network, either satellite or over the ISDN. They are also planning to expand the collection of products on the system to include toys and videogames.

Once the units are linked to a



network, it's very easy to imagine an international mailorder catalogue enabling you to order your Italian shoes or Brazilian samba record direct from the makers. There are already mail-order shopping discs available for CD-I, and with improved data transfer networks it will probably soon be possible to access these catalogues over the ISDN. As far as digitally recordable music, video, video-games, and even newspapers and magazines go, it might soon be simpler to pipe the information through the ISDN straight into a home CD-R or hard disk than manufacture and deliver the physical paper or discs themselves.

Video Standard

John Edelson of 3DO suggested that it provides a world standard for CD video, but he would, wouldn't he? Because his company is trying to sell one. 3DO, as was reported in August

AUI, is hoping to become the next big thing in multimedia, with a technology that aims to bring the bedroom Nintendo freak and his home-computer using parents together in front of the family 'edutainment'/TV/VCR unit, which will take four different kinds of CD, including Photo-CD, video CD, and the specialised 3DO interactive video CD. The amazingly similar to the Amiga 3DO, created by the team that DID build the Amiga - has certainly gathered some heavyweight backers - like Matsushita, the biggest consumer electronics company in the world (though you might not have heard of them, they own Sony who were responsible for the VHS video standard and you might know them as Panasonic), AT&T, MCA, and Time-Warner, the biggest film and media company in the world.

It's hard to say whether businesses can still force standards on the market through sheer marketing muscle, regardless of quality, relying on the timidity of consumers in seeking what they really want. IBM and Microsoft have just about got away with it, and Sony did with VHS a few years ago, but their methods, which seem to consist of psyching out the competition and the consumers, are beginning to seem a bit transparent. Not that there is anything wrong with standards per se, just that people seem to accept standards that a minimum of looking around would reveal to be below par, simply on the grounds that everyone else is. Amiga users stand firm (MSDOS compatibility is round the corner). Anyway, standards seem to be coming thick and fast these days, as are, consequently, standards for converting from one standard to another, and it may be that 3DO is one of the last big hyped 'standards' before the computing world as a whole steps through the shimmering portal of object-orientation into a new dimension of universal compatibility (whatever that means!). Consumers, and the technology, are becoming increasingly sophisticated in understanding and being able to switch between different formats of information - with Amigas able to emulate PCs, and PCs able to read Mac files, it's becoming less crucial that you have exactly the same hardware as everyone else. This trend towards more flexibility and compatibility seems to benefit all involved, but may undermine the need for a marketed, licenseable worldwide standard like 3DO - well, it remains to be seen.

The marketing angle 3DO takes is to see the consumer market like this - there are 55 million homes in the world with a computer or videogames unit, which are split into 1/2 million 'innovators' i.e. computer whizzkids, 5 million 'early adopters', which probably

includes your average AUI reader (that's you folks!), and 50 odd million ordinary joes who buy whatever the early adopters having, only later on, when it's cheaper. With this logic 3DO is aiming to impress the early adopters so that the rest of the punters will follow suit. So, if you find yourself looking down the wrong end of a marketing campaign for 3DO, you'll know what's happened.

Incidentally, asked how it is possible to make money out of selling Multimedia applications into people's homes, Edelson had a rather neat, Californian-sounding theory of the consumer home entertainment market that he expounded after the seminar. In America you pay about 2 dollars to hire a 2-hour video, \$10-15 for a book that might take you 8 hours to read, 15 dollars or so for CDs with a similar amount of listening time, and \$50 for a home videogame which apparently gets an average of about 50 hours of use. Hence an apparent rate of about \$1 per hour that people are willing to pay for home entertainment, whether consciously or not, which any prospective seller of new home entertainment systems like 3DO would ignore at their peril.

No books?

Will multimedia replace books? "Perhaps, but not yet" was the simple answer from Peter Cook. Vice-president of Creative Services at Grolier Electronic Publishing. They publish one of the biggest selling CD-ROM interactive multimedia encyclopaedias. They have just brought out a '93 edition of the Guinness Disc of Records. Grolier have found that since they first brought out the CD-ROM version of their encyclopaedia in 1986, sales of the 21-volume book version have in fact gone up, despite being over 5 times the price of the CD-ROM. Certainly as far as pure information retrieval goes, there seems to be no contest - the CD-ROM offers fast searches of the 10 million word database, extensive cross-referencing, and short video clips of many of the entries. Their biggest customers traditionally are libraries, though, and have you seen a CD-ROM in your public library yet? Peter Cook gives it a good 10 years before multimedia will really start to dent the book market.

In the meantime, he had some tips for anyone who wanted to cash in on the multimedia publishing boom. He saw growing demand for cheap photo libraries, who didn't charge as if every photo was going on the cover of Vogue, cheap musicians, for multimedia soundtracks, and expensive lawyers, to sort out the copyright jungle that is growing around multimedia. He also lamented the fact that his company had to go to MicroSoft in America to get their encyclopaedia published and

distributed, because British publishers are being far too cautious about entering what is now not such a new field.

Designing Multimedia

This seminar focussed on the often overlooked subject of design in implementing Multimedia systems, in particular the interactive guide to the Tsui Gallery of Chinese Art at the Victoria and Albert Museum. Unfortunately most of the slides of the V & A system were missing, which cut the presentation short, but the speaker did manage to make some sound points about good design, such as the necessity of sealing the gap around the touchscreen if it is for public use, so that people don't put sweet wrappers behind it. Tynn Lintell, the creative director of LineTV who designed the system, had some more interesting general points about design in Multimedia, including some neat graffiti-style design aphorisms. 'Good design empowers people' was the message on the loo door to Multimedia publishers who might consider skimping on the design budget, and 'Choice + Response = Gratification' was the watchphrase for interactive video makers.

Michael Feldman and Toby Jackson from the Tate Gallery in Liverpool, and Phil Phillips from the Liverpool Museum, gave some insights into how they are using Multimedia to improve public access to, and information about, their collections. The Tate system provides historical backgrounds and 'thematic tours' of their collection (as well as other works) via CD-ROM, whilst the museum is in the process of 'photo-archiving' its collection onto videodisc, enabling viewers to examine objects from various angles. Both systems offer users the future possibility of accessing the collections outside working hours, and theoretically, from any suitably networked terminal. The National Trust is using an Amiga-based system for an archived garden project.

Schools

New Media got the government contract to produce a multimedia maths-teaching resource out of 42 other tenders, because - according to the government department involved - they were the only ones who did not claim to know how to do it. After all, who can claim to know how to apply multimedia in schools?

By the look of the Interactive video packages, it seems to have been quite a



VISIT videoconferencing

good choice. According to Dick Fletcher, the managing director, it's the first time in the history of the inner-Nottingham secondary school where they tested it, that pupils have actually been caught running to Maths lessons! Figuring that children like video games (check!), they decided to make the resources as much of an adventure game as possible, and the result was 'Who stole the decimal point?', where the world has been thrown into chaos by the missing point - banks, exchange rates and shops all rendered inoperable. The intrepid student must visit the mansion of the dastardly Count Integer to find clues and solve the mystery, which, as you might imagine, involves working out maths problems along the way. As many of the people speaking about multimedia in training and education, Dick Fletcher stressed the importance of the teacher in managing the resource. Those in the industry seem very conscientious about steering away from the idea of people learning everything from a machine, emphasizing the nature of multimedia as a tool to be handled properly.

Collaboration

Throughout the seminar programme there had been a lot of talk about the changing nature of organisations, and how the demise of the traditional hierarchical business structure was giving way to a pattern of shifting 'communities of interest'.

Videoconferencing is being mooted as the next big step in fusing telecommunications and multimedia.

Communications technology seems to be playing a significant role in this process, and videoconferencing is being mooted as the next big step in fusing telecommunications and multimedia, with all that implies for 'teleworking', and breaking down the barriers between company and consumer.

Videoconferencing is being able to work with other people via a computer screen, on which you can see them plus any documents or files you, plurally, are working on. There are several systems coming onto the market, most of which enable you to send each other files and work on the same file simultaneously, in some cases with two or more other people in different locations at the same time. BT and PictureTel are two companies with experience of developing videoconferencing systems, who both came down to demonstrate their respective best efforts at a practical videoconferencing package to a packed and expectant crowd. This may be the year that videoconferencing takes off at last, judging by the number of companies that are launching their first videoconferencing systems aimed at the average businessman, and the

audience was looking to be impressed.

BT went on first, with John Davidson from their marketing division. After a rather meandering speech on BT's marketing strategy, which gave the backroom boys enough time to resurrect the crashed hard disk, we finally arrived at the moment everyone had been waiting for, the best-of-British cutting-edge videoconferencing technology from BT - this was what the 3 million-a-day profits since privatisation had all been spent on. The call to BT's labs in Martlesham went through, and after a couple of tense false starts, Bingo!, up came Joe from Martlesham on the monitor, sporting a magnificent, authentic handlebar moustache. 'Hello, Joel', said John, with evident relief, and Joe replied, his voice discernible, but noticeably distant and compressed.

His quarter-screen colour image on the monitor was also discernible but distinctly jerky at under 10 frames a second, though it wasn't clear whether this was normal or just because the digital compression algorithms couldn't handle his moustache. They proceeded to demonstrate some features of the BT system, kicking off with sending a •



The hot and sweaty world of multimedia at Earls Court.

His quarter-screen colour image on the monitor was also discernible but distinctly jerky at under 10 frames a second,

TheFuture

It is easy to see videoconferencing catching on in the business world, and from there perhaps in homes, if BT or one of their rivals makes the price of ISDN connection more sensible. This would mean that almost anyone with a computer could send and receive video, sound and text from home. A Europe-wide ISDN is due in 1994 and by then there is likely to be much more information available over the network from other users, commercial organisations, and free bulletin boards. With the current rate of technological development, this available information might well include the text of books in libraries, feature films and TV programmes from film and TV company archives, CD-quality music and concerts either 'live' or recorded, live sessions from several parliaments and lectures from various professors, as well as the view from satellites and surveillance cameras around the world (and maybe even the latest pictures from space probes). There is no doubt that across a whole, enormous range of activities, as someone has said (could it be AUI?), multimedia is the shape of things to come.

of the audience. He fielded a couple of questions, his voice sounding remarkably clear and noise-free, before signing off, leaving us suitably impressed.

To be fair, this was not your standard, portable videoconferencing system as BT's was - this one came in a mysterious black box bigger than a briefcase, and Jamison was reticent about exactly what data communication standard they were using (more than the H.260 of the BT system), but it was enough to give a taste of the possible. Talking to Drew Jamison afterwards he told me that the really exciting release would be this Autumn when the Black box should be available on a card for PCs, giving quality videoconferencing with a 128k bandwidth (ie 2 x 64 kbits/second lines on the ISDN network). With an estimated £10000 pricetag though, he is going for the quality end of the market.

document file. For some reason the file Joe was trying to send wasn't coming through. 'What number have you got there?', asked John, and in an abrupt jerk back to present-day technology, went off briefly to find the scrap of paper with the number on. Eventually the right number was found, and they went on to demonstrate sending documents and photos, and working with 'whiteboards' - where both ends can look at and alter the same document simultaneously. BT have been using this collaborative working facility internally over the ISDN network for almost two years, and Davidson detailed some of the benefits. One chipboard design problem that Olivetti (a BT partner) were having in Italy, was successfully solved from Martlesham over the videophone, by pointing the camera at the components in question and so saving all the time and effort involved to fly experts out. BT estimate that they have saved about 50% of the travelling expenses of people using the system, while at the same time the level of interaction and communication has gone up.

The idea of videoconferencing as an alternative to travelling to meet someone face-to-face came up again in the talk by Drew Jamison, the marketing manager of the American-based PictureTel Corporation about their forthcoming system. For business videoconferencing, where your face 'arrives' on other peoples' desks, he

used the analogy of the company car that a businessperson uses to visit clients - you don't want to break down outside their office in a battered Yugo, you want to arrive in a style befitting the impression you want to give. In other words, quality of presentation is important to businesspeople, and the clear implication was that the PictureTel system was the gleaming Cadillac of videoconferencing (in particular compared to BT's quirky but loveable Morris Minor).

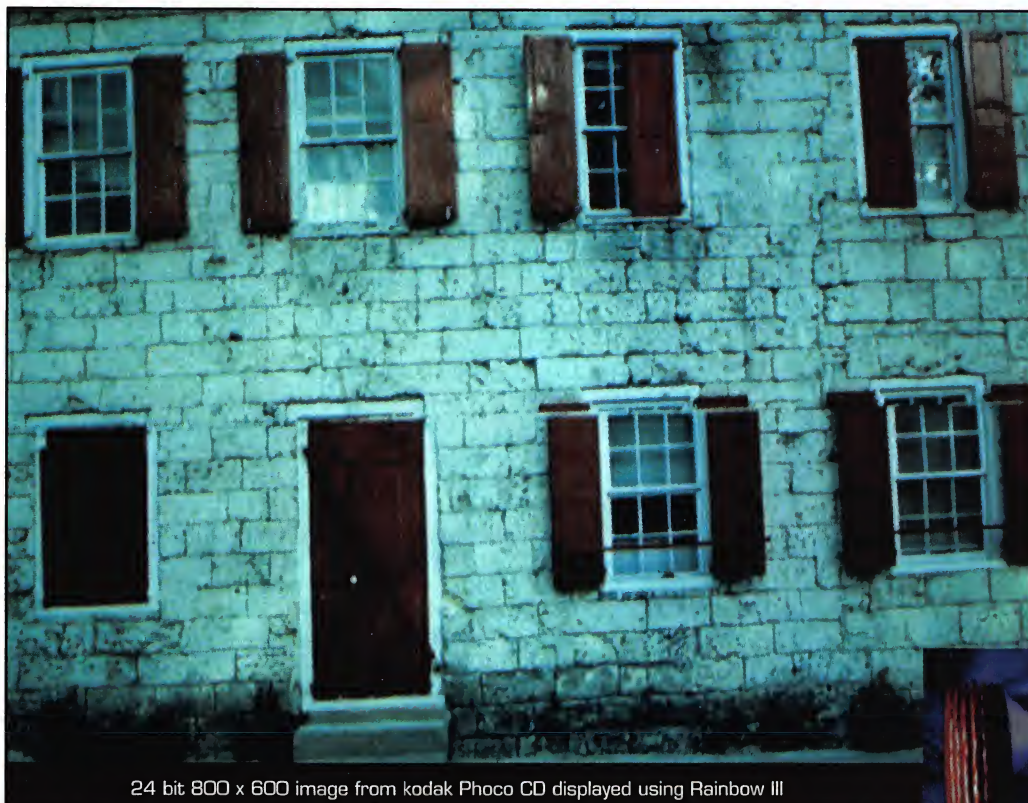
The demonstration he gave bore him out - no technical hitches here, straight through to America and a full-screen, seemingly TV quality image of 'Mike' sitting calmly behind his desk in Boston, emanating higher knowledge of videoconferencing. There too in the corner of the screen, as seems to be standard practice in videophone systems, was the image that Mike was getting of us, in this case of the seminar audience. With a mixture of mild panic and stagefright, though, we suddenly realized that Mike in Boston was controlling the camera, panning and zooming in on unsuspecting members

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The offer of yourself being videoed and transferred to floppy for use on your own PC could have blown you away

RAINBOW III



24 bit 800 x 600 image from kodak Phoco CD displayed using Rainbow III

The Amiga has really always stood out from the crowd because of its stunning graphics, generated at low cost, for hard cash and also for hardware necessary. But there have always been problems. The lack of a true 24-bit display mode with genuine high resolution graphics has often frustrated Amiga users, and even with the spectacular new AGA machine, there is still a significant gap between the excellent possibilities of HAM8, and the requirements of professional computer artists, image processing people, and those working in video. All these applications are vital to the success of the Amiga outside the consumer/games arenas. As Commodore have been unable to provide the required features as standard, third party developers

have moved with considerable speed and ingenuity to cash in on a fairly small, specialist area.

Several companies have provided graphics cards, many more have promised them, but the one currently causing the biggest stir is the Rainbow III III from Chartscreen UK. Rainbow III is essentially an exceptionally fast pile of memory which is capable of pumping out the pixels to the display at a phenomenal rate. It allows you

to use very high resolution modes with lots and lots of colours, more colours than you could possibly imagine.

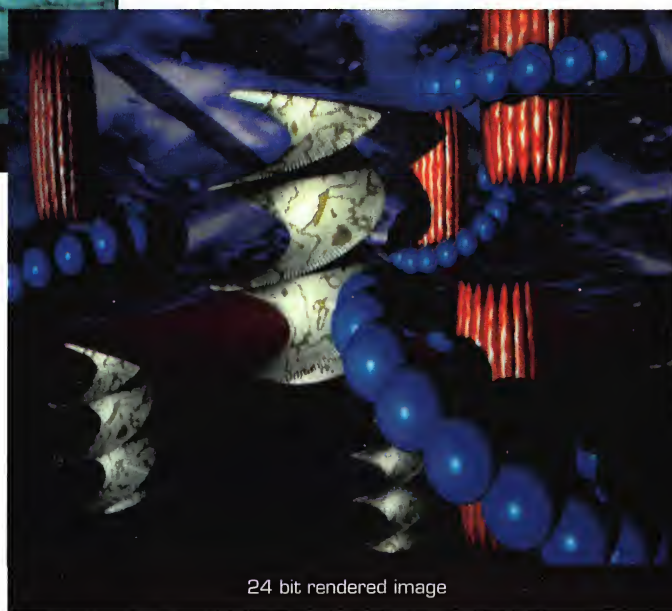
What is so different between this and a 24-bit graphics card on, say, a PC which you can pick up for under £200? The major differentiating feature is speed. Relying on the very fast throughput of the Amiga 3000/4000 series'

ZORRO-III data bus, the Rainbow III can not only display high resolution pictures, but can also allow you to work on the screen as if it were your normal Amiga display, rather than taking several seconds to update the frame. There are several important implications for users – see the "User Interface" panel.

starting up

The hardware requires the extra bandwidth of the A3000/4000 Z3 32-bit bus and there is a Rainbow III II version, with slightly less pixels to play with, for the A2000 with its older Zorro-II 16-bit bus. The board

Mike Nelson
gets excited
about the
latest
high-end 24
bit graphics
board from
Chartscreen.



24 bit rendered image

plugs straight in and installing the software is just a matter of copying some files over onto your hard drive. The review board was actually already installed in a supplied A3000 for me, which was very convenient, and the documentation was decidedly pre-release but seemed informative and easy enough to deal with.

The first thing to do once everything is connected is to configure the board for your monitor. The subject of monitors is a fairly complex one, with all

retargettable graphics

Unfortunately for third party manufacturers, Commodore's priorities have lain in getting the 3.0 operating system up and running rather than the incredibly important issue of retargettable graphics. What on earth is it? RTG is a transparent interface between the Amiga's operating system and an application that redirects the output instead of the Amiga's display hardware to an alternative third party board like the Rainbow III.

It would mean that you could run a DTP program in a super high resolution mode with 24-bit colour on any of the current 24-bit boards around. The application programmer doesn't have to write code for each device, but only has to support the standard Amiga graphics protocols and output is automatically directed according to the user's preferences.

Theoretically, given the Amiga's superb multi-tasking facilities, you could have several display devices attached to different monitors all simultaneously running different programs such as MorphPlus, ImageFX, ProPage and even a Toaster (when it exists for us).

RTG is still a way off, but Chris Green, in control of the Amiga's graphics library is a big fan of the concept which will unify graphics output on the Amiga and has incorporated much of the foundations into the 3.0 Operating System release. They're all there, you just don't notice them – a central concept for RTG.

However, people couldn't wait for the Big C to get their act together and went ahead with their own method and the Rainbow III has the best Workbench emulator there is. In theory, any "Workbench" application will work on the Emulation screen with all its finery, but this is not a perfect world by any means and the ever-changing operating system makes life difficult for those trying to copy its functions. See the Emulation panel for more details:

Supplied with the Rainbow III is the Enhanced Graphics Library, or EGS. This is a set of functions akin to the Amiga's own extensive graphics.library which provide the programmer with line drawing code and such like. If you're feeling keen, you too could access these.

WORKBENCH EMULATION

In order to get applications that are expecting to run on the Workbench screen to appear on the Rainbow III driven monitor, you have to fool the program into thinking it is running normally. What is the advantage of this if the program won't support any more colours, or the higher resolutions? Well, the Rainbow III with a 1600 x 1280 pixel screen can stash a heck of a pile of windows before they start to overlap, for one reason: the EGS libraries intercept the calls made by applications to write to the screen and simply re-direct them to the equivalent Rainbow III routines. This is fine for software that uses legal code and plays by the rules. However, many programs, especially those which do spectacular things with the display, use illicit tricks or short

cuts. The 2.1 release of Workbench really requires programmers to behave, but herein lies VisionA's (the authors of EGS) big problem; the Amiga's operating system is now in a state of great change, with 2.1 and AGA's 3.0 being the most recent versions. Every time Commodore alters things, they have to jump quickly to keep up to date. Retargettable graphics will eventually make such occurrences a thing on the past.

I successfully ran on the Rainbow a variety of the more popular applications including ProPage, Superbase and several text editors without too many difficulties. The exceptional quality of the EGS/Rainbow system made working in this environment a dream – every Amiga should have one!

manner of weird and wonderful possibilities, from relatively simple VGA monitors to monstrous affairs capable of managing 1280 x 1024 pixels in 24-bit colour. I can't really go into all the sordid details of monitors, refresh rates, etc., as the technical stuff is pretty mind blowing, but some understanding is necessary if you are to make the most of the Rainbow III.

Essentially its output is totally programmable and you use a program called ScreenTweaker to configure the Rainbow III to suit your monitor. This sounds easy, but when you actually

look into all of the parameters you can alter the whole affair seems rather daunting. The board is not aimed at the masses though and I'm sure that Chartscreen's excellent technical support crew will assist you to configure the Rainbow III for your particular monitor. This isn't a task to be taken lightly as the Rainbow III is capable of generating output frequencies that may fry the innards of certain monitors – so be warned.

You are supplied with a vanilla VGA configuration which should get you up and running with just about any PC monitor and you can play around from there. Most people will use two monitors with their Amiga/Rainbow III combination, one of which will run Workbench and the other for the Rainbow III-specific applications which currently number just one, the awesome TVPaint which is worth the cost of the board alone to many people.

I ran the Rainbow III in its 24-bit, 800 x 600 mode and TVPaint was just

future amiga

You can look on the Rainbow III as the future of Amiga graphics, as my recent articles on the likely direction of the hardware in subsequent generations show. However, the Amiga will not, for the foreseeable future match the current Rainbow's awesome output and we will be relying on tricks (like HAM) to get the full whack of colours on screen. The inclusion of retargettable graphics should, however, go a long way to narrowing the gap between the Quantel-style graphics of the Rainbow and the "Off-the-shelf" Amiga.



TVPaint showing superfast zoom mode and user friendly windows.

a joy to use. I haven't the room to go into the wonders of TVPaint and it is a product which has been reviewed on several other occasions. All I can do is echo the praise piled high on the premier graphics program certainly on the Amiga, and quite possibly on any micro in existence. It is fast, powerful, friendly and generally stable, although I was using a Beta version with a couple of minor bugs, most noticeably in the LOAD module. Nonetheless the whole package is an artist's dream.

When the board was on show in the US recently, a couple of the NewTek people, generally used to stealing the show when it comes to graphics were almost knocked over by the impact of

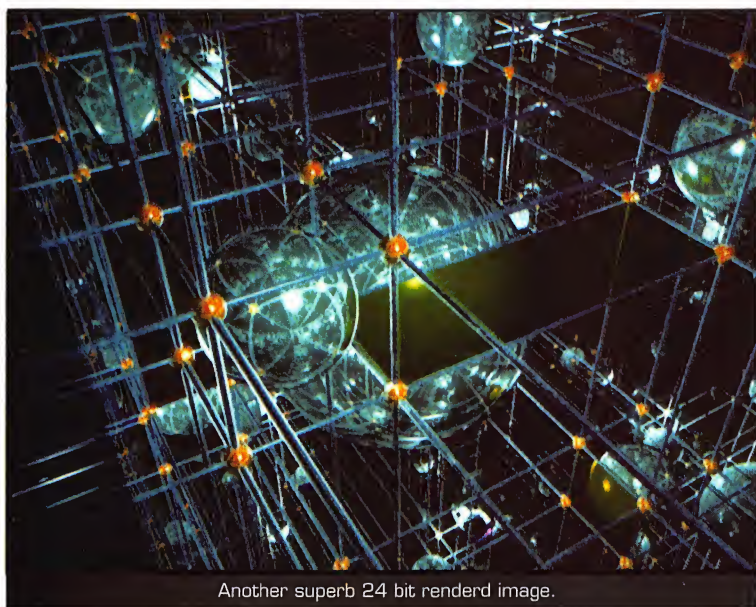
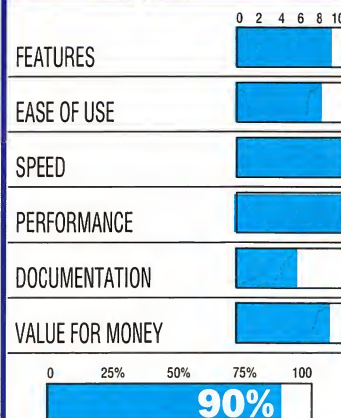
2.0, took three times as long to complete, just to put the speed of the Rainbow III board into perspective, and also to justify the not quite so bargain basement cost.

conclusion

The Rainbow III III is one of the finest third party Amiga products I've come across (and let's face it, I've seen a few). It's fast, highly specified and it works. The software supplied is a little rough around the edges and Chartscreen really need the support of companies like ASDG with ADPro and

The board is clearly aimed at the professional graphics artist and the software will grace the workstation of any post-production video house who can't afford a Quantel Paintbox (who can these days?). Seeing the still pictures in the magazine doesn't really do the board justice, so I'd recommend you take a look at it at one of the shows, as it'll knock your socks off. Just show that to a PC or Mac user and let them say the Amiga is just a games machine! **a**

Ratings: Out of 10



Another superb 24 bit rendered image.

the demonstration playing. And they admitted to using TVPaint for touch-up work instead of their own ToasterPaint which they admitted was the Toaster's weak link.

The same demo on a rival graphics board, also running TVPaint

MorphPlus. However, the inclusion of the wonderful TVPaint 2.0 is a masterstroke and the quality of this package almost justifies the cost of the board in itself.

tech specs

The Rainbow III is made by the German company Ing-Buro Helfrich and sold in the UK exclusively by Chartscreen UK. The EGS software was written by another German group calling themselves VisionA; TVPaint is the product of Tecsoft from France.

- Resolution:** Fully Programmable from 320 x 200 all the way to a stunning 1600 x 1280 (if you have a monitor capable of doing this)
- Video:** High resolution 128-bit pixel bus running at an egg-frying 110 MHz. coupled with the exceptionally swift Zorro III, the Rainbow can shift 15-20 Mb around the inside of an A3000. Supports full 24-bit, 16.8-million colour palette. Again this is programmable. Some limitations in terms of bitplanes and palette - 16000 colours in highest resolutions. I can live with that.
- Video Memory:** 4Mb of dual ported VRAM. One reason why it's not cheap.
- Hardware Cursor:** 64 x 64 pixel sprite in 3 colours
- Output:** VGA-style 15-pin RGB socket.
- Price:** £1600 or £1700, check with Chartscreen
- Telephone:** (0425) 475575

user interface

The Rainbow III implementation does throw up some interesting questions regarding user interface design. The term GUI, or Graphical User Interface, is nothing desperately new to get excited about, but is still in a state of evolution as computer people strive to make their toys more approachable for the masses, who find it tiresome to remember 86 different keyboard shortcuts to load a file. Even with the Amiga's Workbench there is now rarely any need to resort to the old fashioned command line interface.

People are usually looking for more choice in their working environment so they can tailor it to suit their individual needs. The Amiga's Workbench was considerably re-vamped with the release of version 2.0 of the operating system nearly two years ago. This brought the rather bland look of 1.3 kicking and screaming into the 1990's, and the big C aren't stopping there as they have more far reaching ideas in store.

Localisation, the ability of a user to select the language which is then used by all decent applications, for instance, is a very innovative step, paving the way for developers to break into the lucrative Japanese market with their difficult language and characters.

The overall "look and feel" of a user interface has been the subject of intense legal battles in the USA (where else?) and although the general opinion is that the Windowing Icon Mouse Pointer (WIMP) concept, popularised (though not invented) by Apple, is not subject to copyright, specific details naturally are.

So what does the future hold for the Amiga GUI?

The chunk of operating system that handles the Amiga WIMP is called Intuition and this has undergone several changes in recent times. Although the cosmetic ones will be most familiar, there is an amazing amount of new code in the ROMS to allow an alternative means for programmers to get their applications up and running. Called Object Oriented Programming, the latest fad in computing has hit the Amiga in a big way.

The specific details are beyond the scope of this article, but the upshot for the application user is a consistent environment where, just because he is using a drawing package and a word processor, loading and saving a file, involves a markedly different set of mouse movements or keypresses. To this end, Amiga menus are structured in a broadly

similar way, as far as the specific features of a given application will allow. So what?

With increasing resolution, the screen effectively gets bigger! In other words, there are more pixels for the pointer, and hence the mouse, to cover. For the user to move from the bottom right of the screen to the menu bar may take up quite a lot of desk space by the time the mouse has traversed the necessary distance. The Rainbow III "alternative" environment allows you to attach menus to window title bars (rather than the screen), or optionally pluck the menu off the title bar and drop it at some convenient point on the screen somewhere, where it behaves rather like a window. Naturally the application doesn't need to know what is happening - it just sends the same signals to the Operating System, and receives the input events in the usual way.

Screens are also treated differently under the Rainbow operating environment for they are stackable, as with the Amiga, but you can't drag down one screen to reveal another behind - it's all or nothing. The Amiga is actually unique in its ability to appear to have different screen graphics modes available at once. It's a very successful con trick!

Unlimited

The innovators

BEST OF THE

- GAMES**
- PG003 AIR WARRIOR Good light Sim (not AG000)
PG005 ANTER & SLOTS Rare role playing game + Y
PG006 ATACAT Warlike playable game + Y
PG023 BATTLEFORCE strategy war game + Y
PG024 BLACKJACK A good card game + Y
PG026 CASTLE OF DOOM Excellent game + Y
PG028 COLLOSSUS & WORLD 4th adventures + Y
PG030 DRAKSTAFF Super emulated text adventure + Y
PG032 DRAGON'S CAVE D&D style game Mega- + Y
PG034 ETERNAL ROME Strategy & D&D chess + Y
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PG080 SERENE Good strategy + Y
PG081 SERENE II Follow up to the above game!
PG082 STARFLEET Nice game done in SEUCK!
PG083 TUNIS Good strategy + Y
PG084 TRAIN CONSTRUCTION Kit make own tracks + Y
PG101 THE INSIDERS CLUB Slots & shares game
PG102 THE BEAVER GAMES Great mini type game
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PG122 WOLF WAR Excellent quality platform + Y
PG123 SKYFLYER Superb WWIII shoot em up!
PG127 AIRMANIA Super platform game from Addware + Y
PG128 TACT WOLF A superb strategy + Y
PG129 PUGGLES Brilliant O'Berl game!
PG131 ATLANTIS A nice local strategy game!
PG132 LITTLE OF BRITAIN Excellent strategy war game!
PG139 DUNGEONS OF MADROU Excellent D&D game + Y
PG140 MIND GAMES Stacks of fun with this!
PG141 A NIGHT AT THE TOWN Wily tech adventur!
PG151 FLAG CATCHER Avoid the bombs!
PG153 WAR very good strategy/adventure game + Y
PG154 THE ALIEN ADVENTURES Magic mini type game
PG158 PORK A PORK POE the balloons & stop the tokes!
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PG168 TACTICONS Great new puzzle game just in!
PG174 AMOS CRICKET Shareware cricket game, 0 or 2plr!
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PG176 CRACKS Excellent quality platform game!
PG178 BENTAL IMAGE 2 Thru a nice puzzle game!
PG179 BOMBA A tricky game written in ShootEmUp kit!
PG180 TACTICONS A nice game similar to Alien Breed!
PG181 STRIKEBALL A classic game in Amos + Y
PG182 ETHOS Simple graphical adventure Sinbad style + Y
PG183 ATACATON Great D&D style game. VG.GFX + Y
PG184 FANTASY FISH Excellent quality platform game!
PG185 ARAZAMAZ Similar to the game Microbes. Good + Y
PG186 RESCUE Super scramble like shoot em up!
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PG189 ACT OF WAR New space strategy game!
PG190 INVASHER FINDER Very good strategy game!
PG191 INVASHER FINDER Very good strategy game!
PG200 ALL ROUND CRICKET New cricket game!
PG202 SLOD SQUAD Good strategic war game!
PG203 THIRDA SQUAD Good strategic war game!
PG205 SQUAD CARDS Football managing game!
PG214 LEGEND OF LOTHIAN Superb Ultima type game!
PG215 HYPERITY & WIZARD Super strategy game!
PG226 MICROMARKET V1.1 Good stock shares game + Y
PG228 3D GAMES 3 games done in 3d construction + Y
PG231 WALKER A superb strategy game!
PG232 MR & MRS Great platform adventure game + Y
PG247 PICTURE TILES Nice picture puzzle game + Y
PG248 PRF SALAD Very nice platform game!
PG251 PARADOX & WHITE RABBIT DEMOS OF CLRI-Y
PG253A ZALYCON Shoot em up space game!
PG254 ZALYCON AT Warlike strategy war game!
PG264 LCD DREAMS A small LCD game + Y
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PG268 TETRIS A classic game in Amos + Y
PG269 PICTURE PUZZLE Solving picture jigsaws + Y
PG2801 18TH HOLE A nice golf game (2) + Y
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PG283 SPACE CLEANER A bombjack clone game + Y
PG284 SOUTAISE SAMPLER New new game + Y
- BEST SELECTION OF PD GAMES ever assembled anywhere now all autoboot on A1200! (though not all games will run!) Something for everyone!**
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AS3 Gallat & Drog Super game with graphics!
AS4 Frogger Go Moku Cracker Jumpy etc!
AS5 Raid, Go Looly & Retaliator!
AS6 FIREWORKS & Mame Game!
AS7 Moonbase, The Nightwinks Claudeunner!
AS8 ARAZAMAZ Snakepit & Numberbunker!
AS9 Features Battle pong & Blizard!
AS10 Escape, Pipeline, Pickout & Syst!
AS11 Dado, Conquer, Reversi Towers & Trippin!
AS12 Lamaron, Car, Powerpong, Fly, Fobli!
AS13 Twintris, Squamble, Ball 8ball etc!
AS14 ChnraChallenger & Amiga Columns!
AS15 Battleships Letters & Mambolus!
AS16 Tacticans, Mission X, Dellemma, Pacman + Y
AS17 Tormat, Delenda, Jettan Bugbuster + Y
AS18 Hena, Fanny, Superfly, Ocean, Super game!
AS19 Growth, Fanny, Freddy, Biplane & more! NT600
AS20 Microbes Hollywood Fun Coin drop + Y
AS21 Zola Tetris Battleships & Drog!
AS22 Lemmings, Wizzys, Quest Doid Mouthman + Y
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AS25 Mr Brick, Copper, hemmers, E Type + Y
AS26 Superpacman 92 Smashth Ashido System detc!
AS27 Addictive card games, Really good!
AS28 Dooty, D.Mario, Invaders, Madzomb2 + Y
AS29 Dooty, Rome, Nove, B-Ball, Atax, Quadrix + Y
AS30 Bounce & Blast, Total Fire Tank attack + Y
AS31 Arazamz, Crazy pipe, revolution etc!
AS32 Bloo, Sector one & Firefighter!
AS33 Gallat & Drog Super game with graphics!
AS34 Trailblazer, Yell, Qbic, Roushumi + Y
AS35 Pong, Snakepit, Cybernetik, Jump n roll + Y
AS36 Tacticans, Mission X, Dellemma, Pacman + Y
AS37 Klarkis, Ghostship, Paccer etc!
AS38 One on One, Baky, Skyflier 2, Transplant!
AS39 Dooty card game, Really good!
AS40 Disk full of sliding puzzle, Leap 1!
AS41 Pacman deluxe, Helzone Leap II etc!
AS42 Invasion, Invasion, Invasion!
AS43 Interlock Roulette, Oscopole Roll on etc!
AS44 Nibbler, Mouse, Mouse, Oscopole Roll on etc!
AS45 Snake, Snake, Snake, Snake, Snake!
AS46 Amiga O.C. City, Checkers, etc!
AS47 Elevation, Furmyre, Crave, Arenal + Y
AS48 Invasion, Invasion, Invasion!
AS49 Deathbringer in space Sue 1.2 etc!
AS50 Euphorion, Roach, Mote, Builders etc!
AS51 Tacticans, Mission X, Dellemma, Pacman + Y
AS52 Roushumi, Mouthman, & Nul!
AS53 Venus Invaders, Mastermind etc!
AS54 Snake, Snake, Snake, Snake, Snake!
AS55 Cl-tris, Pacat & Asteroids + Y
- ASI 56 Stormrage, Extreme Violence & Tiles!
ASI 57 Poo-poo Dommies Dirty diamonds Squirm + Y
ASI 58 Super rad 4 Magnetron & Malessia + Y
ASI 59 Turbo Thru the 200 & Leadpans + Y
ASI 60 Pipe master2 Alien Hunter & Checkers!
ASI 61 Battleships Running Chaser Sound blaster + Y
ASI 62 Poineluz Mazem & Up and Down 1 + Y
ASI 63 Nautius Furzy & Drive III + Y
ASI 64 Delivon(fab) Breakout on Word search + Y
ASI 65 Paranoics Chess Word Puzzle Word search + Y
ASI 66 Cow wars Asmastermind & Asokobol + Y
ASI 67 Siepe of the Beast Type II & Vektor!
ASI 68 Demolition Mission Rounder & Atoner + Y
ASI 69 Klondike, Celestial Aqueduct Bridge etc!
ASI 70 Digital Tetris, Wangle & Tetrin pro! + Y
ASI 71 Amemz, Battleships & Vs Tetris + Y
ASI 72 Escape pre. Boulderdash 1200 Carli + Y
ASI 73 Lexas, Concentration & Challenger!
ASI 74 Cray pipes II Bombjack & Chutli + Y
ASI 75 Double squares Colours & Diamond thief + Y
ASI 76 Choo Chess, Cuzus & Gerbi + Y
ASI 77 Balltoony, Cliff hanger & Descender!
ASI 78 Little Boulder, Headgears Fruit Panel + Y
ASI 79 Gray Attack, Vector Storm & Atomi + Y
ASI 80 Army Miner Flip II The Galley etc!
ASI 81 Amos Delance, Thunder Tron & Gerdunguald + Y
ASI 82 Antivets Shushon trn & Arcade Volleyball + Y
ASI 83 Loadsamoney, Pong & Spidercracks + Y
ASI 84 Emiga, Ashbush & Zerber!
ASI 85 Paradise pre. Matchcards, Raps & Baginami + Y
ASI 86 Smurfthun, Drog, Drog, Drog, Drog, Drog + Y
ASI 87 Aztec Challenge, Jous, Fullstrand & Landmines + Y
ASI 88 Delander, Relays & Mosaid + Y
ASI 89 Megaball 2.1, X fire etc etc etc etc etc + Y
ASI 90 Flashbier, Stary & Mneklei + Y
ASI 91 Roton, Matrix & Spectrums + Y
ASI 92 Quidor, X fire etc etc etc etc etc + Y
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- Assuming game packs made up in any numbers you require: eg ASI 1-35 only 33.95 inc P&P!!!**
ASI 36-60 only 33.95 inc P&P!!!
(must run on Amiga 1200!)
- FUNPACK GAMES**
- FUN 01 Towers, Trn & Rings of Zon (NOT DOS 2 OR 3)
FUN 02 Raps, Car, Drog, Drog, Drog, Drog, Drog + Y
FUN 03 Videopoker, Sys & Pipeline + Y
FUN 04 X-Fire, Headgears & Driveways + Y
FUN 05 TACTICONS A nice game similar to Alien Breed!
FUN 06 Up & Down, Karamas & Miska + Y
FUN 07 Megaball, Chnra Challenge & ATCI + Y
FUN 08 Lore of Conquest, Montana, Wellstr, Sorry + Y
FUN 09 Snakepit, Blizard & Kick + Y
FUN 10 Frog, Sealance & Billiards + Y
FUN 11 Mosak, Mantis, Spies & Malice, Backgammon + Y
FUN 12 Spacewar, Drog, Drog, Drog, Drog, Drog + Y
FUN 13 Runnin, Family, Sol, Rolterpade, Tanc etc!
FUN 14 Paranoics, Klondike, Conmex etc!
FUN 15 Wordpuzzle, Triangles & Nomenclature + Y
FUN 16 Tides, Newkline, Paccer, Eternal Rome, Flip it + Y
FUN 17 Solitaire, Dominoes, Mambolus & Bally II + Y
FUN 18 Amancalia, Lamaron & Rocky + Y
FUN 19 Copper, Attacks & Diamonds + Y
FUN 20 Simposons, Windmill, Windy Day, Metro Tom games + Y
FUN 21 Puzzer, Card, Mouse, Retaliator, Raps, Bounce etc!
FUN 22 Doo, Amies, Nove, Kim, Crossmaza, Cobra, etc + Y
FUN 23 Jumper, Nakamoto, Rescue, Boomerang, Mirrowars + Y
FUN 24 Sys, Chrome, Challenge, Pong, Desinbringer + Y
FUN 25 Adventure, Boudgams, Bunnys, Crazies + Y
FUN 26 Tetris, Kamikazi, Clifhanger, Trn, Pipa + Y
FUN 27 Bullrun, Pong, M. Wobly, Beldare, Hamburger + Y
FUN 28 Klarkis, Cybernetik, Nebula & Tetris + Y
FUN 29 Invader, Raider & Crazy Sled + Y
FUN 30 Yelo, Tech adventure with graphics!
FUN 31 Arazamz, Tan, Nul, Battlers & Orbit 3d + Y
FUN 32 Wizzys, Ooze & Spacekrax + Y
FUN 33 Rolterpade, Freddy, Bally, Qbic + Y
FUN 34 Quickmoney, Nightwinks, Superpaco, Bid II + Y
FUN 35 Space, Delude, Pacman, Motherfode, MrMunk + Y
FUN 36 Octothello, Snake, Snake, Snake, Snake, Snake + Y
FUN 37 Legend of Lotian & Search I + Y
- EDUCATION**
- PE0015 EDUCATION Set science programs for ages 11 + Y
PE0016 KIDSPAIN, Cab talkin' colour, Science & Music!
PE0017 LEARN & PLAY Maths, spelling etc 10 yrs + Y
PE0019 STORLAND 2 Save toyland from the witch!
PE0020 ATACATON Warlike strategy war game!
PE0021 TACTICONS A nice game similar to Alien Breed!
PE0022 TACTICONS A nice game similar to Alien Breed!
PE0023 SIMON & SPACE Maths taking maths program!
PE0024 SPANISH, French, German, Italian, Spanish + Y
PE0025 FRACTIONS & SILHOUETTES Good maths tutor + Y
PE0026 WIT FACTS Good historical program + Y
PE0027 MATHS DRILL Good maths drill for the young!
PE0028 MATHS DRILL Good maths drill for the young!
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- BUSINESS**
- PB001 AMICASH Bank management program + Y
PB002 ANALYTIC Bank management development system + Y
PB003 ASI LABEL PRINT Management development system + Y
PB004 ASI LABEL PRINT Management development system + Y
PB005 BANKIN Control your cheque book!
PB006 BUSINESS CARD MAKER Nice program!
PB007 CLEVER COMPANY Accounts pack + Y
PB008 DESKTOP PUBLISHER Simple to use + Y
PB009 FLEXBASE DATABASE Address keeper + Y
PB010 MISC BUSINESS Database, Grocery list, Calc!
PB012 OED Simple & effective text ed + Y
PB014 RIM DATABASE Fully relational II + Y
PB015 TEXTLUS V2.0 The BEST Wordprocessor + Y
PB017 VISICALC SPREADSHEET Simple to use + Y
PB019 BUSINESS LETTERS contracts, letters & more + Y
PB020 TEXT ENGINE TO THE LATEST Version III + Y
PB021 AMIBASE PRO, Powerful easy to use Dbase + Y
PB022 BBASE II v5.5 A fast & easy to use database + Y
PB023 FORMS Ruler, Mail Merge, Form creation prog + Y
PB024 LAST WILL & TESTAMENTS Just in case I die + Y
PB025 EDWORD Brand new wordpro - V good + Y
PB026 AGRAFH, Pong, Pong, Pong, Pong, Pong + Y
PB028 LITTLE OF EARTH Integrated Word, Sst, Dbase, Gtx + Y
PB029 ADDRESS PRINT Good label printing program + Y
PB030 ADDRESS PRINT Good label printing program + Y
PB031 EASYCALC A superb new Fast spreadsheet + Y
PB032 PAY ADVANCE Keep record of paystips!
PB033 A BASE A superb database program + Y
PB034 ILLINOIS LABELS Super label program + Y
PB035 BUDGET V1.24 manage personal finances!
PB036 CHECKBOOK A superb program + Y
- UTILITIES**
- (Note: "Y" = ok on A1200!)
- UD002 A-GENE Good genealogy program + Y
UD004b A44 Elevation, Furmyre, Crave, Arenal + Y
UD005 AMATEUR RADIO 1 Interest to radio hams + Y
UD010 ARP 1.3 Amigafixes reporter system + Y
UD011 ASI GRAFT UTILS graphics converter etc + Y
UD013 ASI BOOT UTILITIES bootload utilities + Y
UD015 BIORTHUTS, STARCHART 2 Good programs + Y
UD021 C-LIGHT RAY RACER Good game + Y
- PU002 CHEMESTHETICS molecule display + Y
PU003 CHERMESTHETICS molecule display what you need!
PU007 C-OPY The best PD disk copier & more + Y
PU009 Drog the brother to Shul 3D + Y
PU048 DYNAMITE FONTS II CntrPaste fontscreens + Y
PU049 DYNAMITE FONTS II CntrPaste fontscreens + Y
PU050 DYNAMITE FONTS II CntrPaste fontscreens + Y
PU055 ELECTROCAD DEMO circuit design + Y
PU058 FONTS AND RAM MANAGER B&B video tons!
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- PA120 TWO STROKE PETROL ENGINE Super anim + Y
PA121 BOAT ANIM Colourful anim fast on 1200! + Y
PA122 THUNDERBOLTS ANIM Nice anims! (2) + Y
PA124 ANIM Colour 10 mini animations compilation + Y
PA125 CRAZE GLOO 3 part puzzle animation + Y
PA126 PHOTON DREAMS Room & Star animations + Y
PA131400 10 disk set Steve Packer anims (1200 only) + Y
PA141 STIRLING II Engine Another lab engine anim! + Y
PA142 NIGHTBRED AGA FRACTAL FLIGHT Colourful + Y
PA143 XMAS ANIMATION Amusing animation + Y
- AGATRON**
- AGA01 RED LOTUS Spinning down the road. Fantastic!
AGA02 Star Trek - Shuttle fly past - Great 1m!
AGA03 STAR TREK - Shuttle fly past - Great 1m!
AGA04 KLINGON CRUISER Flying around your screen!
AGA05 STAR TREK KLINGON fires torpedoes 1m + Y
AGA06 LOGO, plus a great star wars fly by anim! + Y
AGA07 STAR WARS FIGHTER doing loops etc 1m + Y
AGA08 STAR WARS, a great anim from the movie (CLL) + Y
AGA09 STAR WARS - Fighter fly by, impressive 1m!
AGA10 STAR WARS - Enterprise in dry dock. Incredible!
AGA11 TRON - Tank v. Deactivator. Good vectors + Y
AGA12 TRON ANIMATION - Not one of the best!
AGA13 ROBO I A nice ray traced robot waving 1m + Y
AGA14 STAR TREK Klingon & Rebel 3 shots + Y
AGA15 LOTUS CAR, Billiards, & Jet Fighter animation!
AGA16 STAR TREK Various anims from the star trek game + Y
AGA17 STAR TREK TWOK animation Short but ok + Y
AGA18 PROBE B&B Animations & Klingonship 1m!
AGA19 BOND ANIM - Coptr plus a car, not too amazing!
AGA20 Huby 2 A helicopter having a landing pad!
AGA21 DATING GAME, for the port 200 2m!
AGA22 ENTERPRISE APPROACHING stunning anim 1m + Y
AGA23 FLEET MANOEUVRE Stunning animation 1m + Y
AGA24 PROBE B&B Animations & Klingonship 1m!
AGA25 THE RUN, a sub car chase 1m + Y
AGA26 SHIP ROCKING at the seaverture leaves cool!
AGA27 BOND OPENING, for the port 200 2m!
AGA28 SHUTTLE & ENTERPRISE Fab anim by Richter + Y
AGA29 MILLENNIUM FALCON The ship being chased - 1M!
AGA30 ENTERPRISE animation, for the port 200 2m!
AGA31 PORSCHE anim, rising out of table 1m + Y
AGA32 SPACE - Space probe flying away 1m + Y
AGA33 PROBE B&B Animations & Klingonship 1m!
AGA34 SPACE OFFICE Star trek anim, a little short + Y
AGA35 SPACE PROBE, great anim of probe zooming off!
AGA36 DATING GAME, for the port 200 2m!
AGA37 TOBIAS GOOD KNACKERS - Check this out 1m + Y
AGA38 TOTALLY WICKED! Shuttle & Enterprise (2 MEG) + Y
AGA39 STAR WARS - Fighter fly by, impressive 1m!
AGA40 STAR WARS - Fighter fly by, impressive 1m!
AGA41 STAR WARS - Fighter fly by, impressive 1m!
AGA42 STAR WARS - Fighter fly by, impressive 1m!
AGA43 STAR WARS - Fighter fly by, impressive 1m!
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AGA45 STAR WARS - Fighter fly by, impressive 1m!
AGA46 STAR WARS - Fighter fly by, impressive 1m!
AGA47 STAR WARS - Fighter fly by, impressive 1m!
AGA48 STAR WARS - Fighter fly by, impressive 1m!
AGA49 STAR WARS - Fighter fly by, impressive 1m!
AGA50 STAR WARS - Fighter fly by, impressive 1m!
AGA51 STAR WARS - Fighter fly by, impressive 1m!
AGA52 STAR WARS - Fighter fly by, impressive 1m!
AGA53 STAR WARS - Fighter fly by, impressive 1m!
AGA54 STAR WARS - Fighter fly by, impressive 1m!
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AGA56 STAR WARS - Fighter fly by, impressive 1m!
AGA57 STAR WARS - Fighter fly by, impressive 1m!
AGA58 STAR WARS - Fighter fly by, impressive 1m!
AGA59 STAR WARS - Fighter fly by, impressive 1m!
AGA60 STAR WARS - Fighter fly by, impressive 1m!
- POWERANIMS**
- PD0012 ANTI LEMMINGS (2) This is Brilliant 2M!
PD0013 ANTI LEMMINGS (2) This is Brilliant 2M!
PD0014 AUTOMATED LIGHT (4) Battling the ball! 3M!
PD0015 BUZZED (3) Great anim of wasp crashing! 2M!
PD0016 DATING GAME, for the port 200 2m!
PD0017 GULF WAR Another 500 for Series 500 2m!
PD0018 LOTUS IN SPACE (3) Good cut up anim! 2m!
PD0019 LOTUS IN SPACE (3) Good cut up anim! 2m!
PD0020 LOTUS IN SPACE (3) Good cut up anim! 2m!
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PD0049 LOTUS IN SPACE (3) Good cut up anim! 2m!
PD0050 LOTUS IN SPACE (3) Good cut up anim! 2m!
- DEMOS**
- PD002 LARME MEGADEMO Acid type video demo!
PD003 LARME MEGADEMO Acid type video demo!
PD004 LARME MEGADEMO Acid type video demo!
PD005 LARME MEGADEMO Acid type video demo!
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PD039 LARME MEGADEMO Acid type video demo!
PD040 LARME MEGADEMO Acid type video demo!
- MUSIC DISCS**
- MD001 100 GREATEST 64 TUNES 100 tab 64 tunes!
MD002 100 GREATEST 64 TUNES 100 tab 64 tunes!
MD003 100 GREATEST 64 TUNES 100 tab 64 tunes!
MD004 100 GREATEST 64 TUNES 100 tab 64 tunes!
MD005 100 GREATEST 64 TUNES 100 tab 64 tunes!
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MD026 100 GREATEST 64 TUNES 100 tab 64 tunes!
MD027 100 GREATEST 64 TUNES 100 tab 64 tunes!
MD028 100 GREATEST 64 TUNES 100 tab 64 tunes!
MD029 100 GREATEST 64 TUNES 100 tab 64 tunes!
MD030 100 GREATEST 64 TUNES 100 tab 64 tunes!
- NEW!**
- PD026 WIBLE WORLD GIDDY Fab platform game!
PD028 B&B ADVENTURE Nice shareware game!
PD029 SLAMBAL Fut

*Most CLR titles
ok on AI2005*

GAMES

- CL011 CALC V1 very useful spreadsheet program 1 disk 3.50. +
- CL012 VIRTUAL WINDOWS Notebook Address booklet1 disk 3.50. +
- CL013 DATOS A powerful database, many features. 1 disk 3.50. +
- CL014 STOCK CONTROLLER Keep track of stocks 1 disk 3.50. +
- CL015 EPOCH V1 calendar for Amiga, 1299 yr diary 1 disk3.50. +
- CL016 CROSS STITCH good needlework program, 1 disk 3.50 +
- CL017 LC10 FONTS Nice fonts for Star LC10 printer! 1 disk 3.50. +
- CL018 LC200 FONTS Fonts for your LC200 printer! 1 disk 3.50. +
- CL019 LC24 FONTS Fonts for your Star 24 pin printer. 1 disk 3.50! +
- CL020 CANNON BJ10. Super Fonts for Cannon Bubblejet 1 disk 3.50. +
- CL021 INVOICE MASTER Sort out your invoices! 1 disk 3.50. +
- CL022 HARD DRIVE MENU Superb hard drive utility! 1 disk 3.50. +
- CL023 F15 ANIM BRUSHES Needs D point! 1 disk 3.50. +
- CL024 RED LOTUS ANIM BRUSHES D Point 1 disk 3.50. +
- CL025 STARFIGHTER ANIM BRUSHES Need D Point 2 disks 4.50. +
- CL026 STAR VOYAGER ANIM BRUSHES for DPoint 3 disks 4.99. +
- CL027 IMAGE BASE Simple to use, authoring package 1 disk 3.50. +

GAMES

- CL005 TRUCKIN ON Truck management simulation 2 disk 4.50 +
- CL006 OBLITERATION Super blast em up! (Not DOS 2) 1 disk 3.50 +
- CL008 DRAGON TILES Superb version yet addictive 1 disk 3.50 +
- CL009 MOTOR DUEL Great 3d car racing game. 1 disk 3.50+
- CL010 FUTURE SHOCK Guide ball through maze! 1 disk 3.50 +
- CL011 ALL GUNS BLAZING 2 player, overhead view. 1 disk 3.50 +
- CL012 BULLDOZER Bob Clear screen of blocks! 1 disk 3.50 +
- CL013 PARADOX Another good puzzle game! 1 disk 3.50 +
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If you ask any reasonably experienced Amiga owner to name a well known copying program, the chances are that the reply will be "X-COPY, of course". During the years that X-COPY has been around it has gone through many updates. This latest version (V10.35) has no fewer than

X-COPY

Professional



eighteen alterations and bug changes. One of the main modifications is a built in virus checker that investigates your disk before you try to copy it, and has a library of 84 known viruses.

There are four copy modes available to you. The first is a normal DOScopy. This is a fast copier that backs up standard Amiga DOS disks. However, this mode does not correct any errors that may be on the source disk. If you want to rectify these errors switch to DOScopy+.

Bamcopy+ is extremely useful if you want to copy a disk which is only half full. The computer will ignore the empty tracks and just copy those with data, this means you get a much faster copy. The last mode is Nibble copy. This tries to copy tracks which are not Amiga standard including Atari St/Ste (Ugh!) and PC (Double Ugh!).

As well as these four copying modes there are eight useful tool available to you. These are:-
Optimise: re-organises the data on your disk.
Format: This is obvious.
QFormat: formats tracks 0 and 40 erasing the directory making it ready for you to use again.
Erase: turns a formatted disk into an unformatted one.
Install: gives you the choice of making the disk both bootable and non-bootable in both FFS and 1.3 OFS.
Speedcheck: calculates the speed of your disk drive.
Driveson: recognises your drives if you had forgotten to switch them on.

Killsys: frees up memory by killing everything in memory except for X-COPY itself. Useful if you only have 512K.

cyclone

X-COPY is excellent if all you want to do is copy Amiga Formatted disks. But what if you have lots of original copy protected games and want to back them up? Well, included in the package is something called Cyclone. This has been partnered with X-COPY almost since it began. Cyclone is a hardware copier and this means that included with the software there is a small cartridge which fits in between your external disk drive and the computer.

Exactly how this little box of tricks overcomes the many protections that games seem to have would firstly take too long to explain, and secondly would be too technical and complex for me to understand anyway. It does seem to be able to copy a lot of games, but it would be unfair and probably illegal to name any of them.

There were however, a few games that it wasn't able to copy, so the hardware isn't infallible.

There are five types of copy available:-

Standard Nibble: will Backup DOS Disks and is very quick.

Deep Nibble: a powerful copying mode that will cope with most protected software, and is quite slow.

Index Copy: uses the disk drives

index pulse to detect the start and end of a track.

APWM Deep Nibble: this is one of most powerful copying modes. APWM stands for Advanced Pulse Width Modulation and works by synchronising the drives and keeping them locked at a constant speed. This mode is very slow and can take up to five minutes to copy a disk.

APWM Index Mode: this uses the APWM technique but uses the drives index pulse to detect the tracks.

As well as these two powerful copiers there are also four other

delete files by simply clicking on them and pressing the appropriate button.

X-PRESS is a hard disk backup utility that enables you to backup all your valuable files onto floppies. X-IT is a disk coding system that will enable you to encrypt disks so no one but you will be able to access them. There is also an excellent text editor called QED which is very easy to use and very reliable.

Every serious Amiga owner must have a copy (an original copy (!?)) of X-COPY as it is the best copying program available on the Amiga. X-COPY is updated every six months free of charge and at £39.95 it is excellent value for money. **a**



utilities on the disk and all are very useful. The first is called X-LENT. This is a very simple directory utility which like Directory Opus allows you to move, copy, rename and

INFO

Price: £39.95

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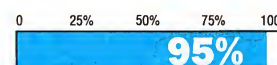
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Craig Saddington has been involved in computers since he left school twenty-one years ago, but his memories of 14k machines that filled entire rooms do not make him backward looking. His eyes are most definitely set on the future and it is one which he sees as including the further expansion of the Amiga market.

A three year spell at Commodore in the mid-eighties, where his involvement with the Amiga 1000 introduced him to the range, convinced him of the machine's potential. Today, as head of the direct sales firm Indi, his enthusiasm for the current Amigas is matched only by his passion for those shortly to arrive.

Still very much a "pro-Commodore man", Craig Saddington seems nearly as happy as they must be with the success of the 1200. Judging from the sales he has witnessed, it has been pounced upon by both newcomers to the Amiga and satisfied users of the now somewhat antiquated 500. With the 4000-030 having such a huge consumer

demand that the limited supply sometimes cannot keep up, it is becomes more understandable why Saddington and Indi are so keen on the range.

revolution

The Boss of INDI sees the launch of the Amiga CD 32 and the ramifications which CD ROM will have as being the catalysts for the biggest revolution in home

entertainment since the appearance of video. "We're seeing the dawn of a new era with CD ROM. Regardless of what anybody else wants

Regardless of what

anybody else wants

to say, Commodore

have always brought

out terrific platforms.

INDI and the Co

will be more Amiga CDs installed in the UK than Mac CDs or PC CDs; I'm confident of it. They might not be staggering numbers to Sega, but then again, I know which I'd rather own. I haven't seen anything so exciting since I saw the first Amiga."

INDI specialises exclusively in

Few people haven't at

some time fallen foul of

bogus mail traders, or at

the very least known

someone who has.

companies like us. We've got to try and take the stress out of it."

Despite the uncertain results of using mail order, customers have nevertheless moved in large

numbers to this form of purchasing because of the bargains it offers. This, together with the effect of the recession,

David Taylor interviews

Craig Saddington, the

Boss of INDI, who are

out to get those

money-rustling mail

order cowboys.

selling equipment by direct mail. Few people haven't at some time fallen foul of bogus mail traders, or at the very least known someone who has. Saddington finds it very easy to understand people's concern about buying from mail order companies. "Personally, if I'd sent off £400 or £500 to somebody who said they were going to deliver a product the next day and it didn't arrive, then I'd start worrying. I understand that. It's hard-earned money people are spending with

has led to the disappearance of many of the High Street independent dealers. Saddington sees this trend continuing and believes that Indi and other similar companies should work towards making mail order as good and as safe as shopping elsewhere.

guarantee

"No mail order purchase, simply because of the nature of mail order,

Saving Rain Forests

There are always negative aspects to any technological advance, and until recently the concept of a society where literacy is obsolete was restricted to science fiction nightmares. Saddington is just as concerned as most with this possibility, but manages to remain more open minded. "I saw something which said that we were heading for a society where there was no need to be able to read. That would be sad, but a part of me can accept that maybe there isn't a need for it anymore. I'm not trying to be radical, but I just think that I can foresee some time in the future when if you have a Walkman, if you have a CD, you'll have no need to read."

"For instance, magazines could come out on CD. Once enough people have got a player, it becomes cost effective enough to produce it on CD. What happens then? We're saving rain forests and we've got a situation where if it's an interview, you could hear and watch the people, or if it's an article, say, on fashion, you could watch them walk down the catwalk. You won't have to merely read it. That's very powerful, I think. That's very entertaining...And there's no reason why it shouldn't also get into such areas as reference, music and education with a very positive effect."



Craig Saddington, cheerfully hunting the cowboys, and Jakki Brambles "We wanted somebody who would look at our company and see what it was about . . ."

wboys

can ever be guaranteed problem free, since it has to be carried from the supplier to the customer by a third party. You can't guarantee 100% of the time that there's not going to be a problem. Sometimes a product will get smashed or stolen or the van might get smashed or won't arrive on time... We're not saying that we'll ever promise trouble free mail order purchasing, but we will guarantee that the customer will never lose their money. Even if there is a problem, there is going to be a route to solving it within seven days maximum."

To try and ensure that this becomes the case across the direct purchasing market, Indi have started the ball rolling by applying not to the PC DMA, but to the official Direct Marketing Association itself. Saddington explains this decision as one designed to reassure the consumer that they are honestly concerned with the

buyer's welfare.

"You have to apply to join the DMA, whereas it seems to me that a society which has been created for computer resellers is going to be active in recruiting people. In itself, that may not stand as a watchdog body. The DMA is recognized by the Advertising Standards Association, who have stringent rules of application and do a lot of vetting. You cannot just join the DMA; you have to be financially sound in the first place, which is one thing. So, we applied and got membership to

the Direct Marketing Association for all direct selling and why should computers be isolated from that? The responsibility to the consumer is just as high."

Saddington hopes that others will follow in their footsteps leading to a time when the customer will know which companies are totally trustworthy. "I want every mail order company that is eligible, to

get DMA approval and to carry that symbol. Then, people who aren't eligible won't get that approval and the consumer will have a whole range of people to pick from, knowing that anybody carrying that symbol on their advertising is a safe bet."

celebrity

Craig Saddington's remarks may not be born entirely out of altruism, but he does seem to have a genuine concern for the state and reputation of the industry and the wellbeing of the customer.

Attempting to boost public awareness and confidence even further, Indi decided to find a celebrity to endorse the idea and the company. They were not going to be satisfied with someone who merely rubber stamped their advertisements though. "We wanted somebody who would look at our company and see what it was about, not just take it on face value with a contract for so much money."

Jakki Brambles, the Radio One presenter who runs a regular computer spot on her programme, was finally approached and accepted the proposal. "We really did want somebody who was in tune with what was happening and we thought that if this celebrity were prepared to endorse our company, then it would go some way to proving our legitimacy. After all, they wouldn't risk their career by association with someone who could damage their reputation."

If other companies like Indi begin to recognize the responsibility which accompanies their trade and work towards taking away any trauma from

mail order, then perhaps a future as bright as the one which Craig Saddington envisages for the Amiga could be in store for direct marketing traders. If his and INDI's hopes for the industry come to fruition, the direct mail buyer of computers, especially Amigas, will have a lot less worry and a lot more security and service. **a**

Sometimes a product

will get smashed or

stolen or the van

might get smashed or

won't arrive on time...

Indi and other similar

companies should work

towards making mail

order as good and as

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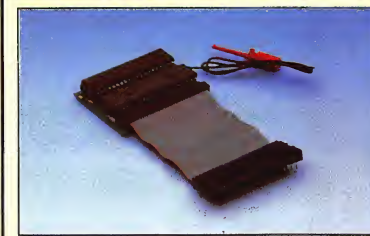
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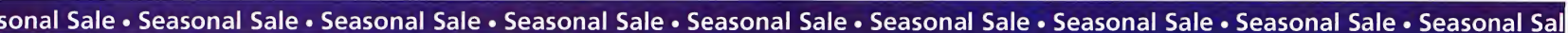


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**Martin Witton - with the aid of
a 9 year old Amiga whiz kid -
reviews this month's crop of
easy learning programs.**

ADI...

READING

Europress Software

R Reading with ADI Junior is aimed at 6 - 7 year olds who will take their key stage 1 assessments in the top infants. The activities cater for both the youngest beginner and the more advanced children. The application uses the theme of a farmyard and the games help build a vocabulary of animal, fruit, vegetable and home words. The aim is to encourage reading and spelling skills by learning to associate sounds with letters, learning to recognise the harder sounds, learning to read and spell less obvious words as well as developing listening, memory and observation learning curves.

ADI is becoming familiar to children as a popular and frequently used resource in many schools, as the programs are designed for very specific age ranges. With the key stages of the National Curriculum targeted in each program, the games let children practice until they become familiar with new concepts, but at an individual's own pace. We reviewed some ADI programs in the August **ADI**, on the same subject as these, but the age difference shows up in the age range focused material.

We asked Cameron Gray, an acknowledged computer whiz at his primary school, and dedicated fan of the Amiga, to help test out the two ADI programs reviewed in AUJ this month.

ADI is a very good teaching program for children. It uses 1 environment disk and 2 application disks. In the first



screen there are various objects around the house and garden which include a car, a bat and ball, a bell and a tap. I think inserting the application disks might be a problem for the children of this age group but once they reach the farmyard the games are lively and helpful.

There are three levels of skill in each game which encourages young children to do better and every time you win five games you get a sweet. Unfortunately, it's a computer graphics sweet so you can't eat it!

The graphics are very clear, unlike some programs which make it difficult to identify the objects. However, there could be a need for an adult to help with any difficult words, or to make sure the player is reading them correctly. There are 15 different games on the program, so in a classroom you would either need a lot of computers or plenty of computer time to get through them all. "But that," Cameron says, "would suit me very well."

Perhaps Cameron in the future you could persuade all

the children's parents in the class to buy Amigas, then the disks could be supplied for homework!

For ages 6/7 years, ADI Junior Helps with Counting is aimed at second year infants and leads to key stage 1. It's perhaps unfortunately titled, as most children can count by age 6 if not already competent by the time they start junior school. However, the wealth of games includes pattern matching and spacial skills as well as comparing biggest with smallest and observation and memory skills.

The program starts, after the usual ADI loading with the environment disk, with A Balloon for Everyone in the Houses which is an addition game using pictures and numbers. ADI asks the user to recognise and use functions, which sounds difficult but is a good introduction showing how to understand numbers

• **T**riple R have
 • approached the
 • National Curriculum in
 • the opposite way to
 • Europress in that 10 out of 10
 • English allows progression from
 • Junior school age right up to
 • GCSE level, unlike the ADI sets
 • which are designed for specific
 • age groups.

- The package consists of six
- games covering 10 areas of
- English, with an accompanying
- achievement chart which can
- accomodate up to 64 children's
- names. In addition, a certificate
- can be printed out when a child
- reaches one of the key stages of
- the National Curriculum.

- Grammar is particularly
- emphasised (although not the
- contentious dialect!) and there is
- a dual scoring system for
- achievement and high scores.

- The graphics are good,
- particularly those at the end of
- each game, and the commands
- easy to use. However, the
- program takes an age to load,
- and once a particular program is
- selected you then have to wait

ADI..

and write them down.

This is developed further in 'How to write a number' - which helps the user to recognise which sum is the given answer.

Comparison games, such as 'The greatest number of objects' asks children to compare two numbers and write down the answer - a start to subtraction.

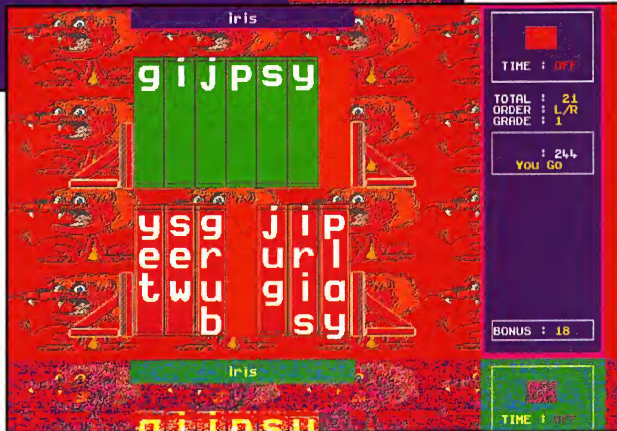
Mental arithmetic is given a good airing - as in 'The Candle Game' - an addition game involving matching the right sum to a given answer. Problem solving is required in 'The Dart Game', perhaps less familiar to children these days, which uses

Triple R Educations



Basic letter recognition tests help unjumble the words

again for the chosen one to appear. If you have not gone off to play by this time, the wait is worth it as the games are presented in a kid-friendly quick fire way. The first game is Sniper which offers a jumble of letters with other letters moving in opposite directions on either side. The object is for you to select the letters in the correct order, thus making a word! If you



are too slow, it is the computer's turn to become impatient as a little arrow appears to remind you which letter you are looking for. You can play against the clock, but you are slowed up by the wait for the right letter to

appear. Our first attempt was to make sense of 'ulgp' - not an easy word to immediately unjumble, as I thought it was 'gulp' when they were looking for 'plug!' and as we had not read either one of the two little manuals, it took a little time to work out what was required! The secret was in making sure the small target was hit, it was not enough to fire on the actual letter so our first attempt scored nil and we were told we were 'pathetic'. The next attempt was better and encouraging messages kept appearing on the screen, such as 'keep trying'. We did.

We faired better with the next game - Cover up - where 'genius' rating was restored. Letters were presented on the bottom half of the

screen with words on the top. Our task was to match them up. The game at the higher level 'covered up' the pictures and letters, and after a short time to memorise the position of the words, the aim was to find the

corresponding letter. This was where I scored my highest score of all the games, beating the pre-programmed scores! However, the comments on screen ranged from 'got it dude' to 'ain't no doubt you got it' which did not exactly square up with the sentiments expressed on the box for the use of English.

The achievement record is represented by colour, with red at less than 50%, yellow at 50% or over, green at 100% - 10 out of 10 and blue when 10 out of 10 has been scored ten times or more. Progress to Grade 2 cannot be made until at least 50% has been scored on Grade 1. The quiz program, Cheers, is pretty difficult at the first level and is fast moving with rolling dice and a snakes and ladders format.

The program does set out to achieve interest for any level of player and is undoubtedly fun. The easy use of the mouse does compensate for the tardy start up of the program.

60%

Counting

the dart scores as a base to finding the dart score through addition of numbers only.

We liked 'Numbers on the Big Wheel', as it involved putting numbers in the correct sequence as well as counting. Some games, for example, the 'How Many Horses Are There In The Prairie', (no not Martin Witton's car!), were more fun than others, but with such a choice, it was easy to find one which was more absorbing than others.

There are 15 different games in all, each with the theme of counting, and similar

problems were envisaged in a classroom situation as those noted by Cameron above.

He was not impressed by the program, and would not recommend it to his younger brother, but even at the hardest level, a counting program is a little 'infra dig' for 9 year olds!

With ADI programs for differing age ranges, children who do enjoy Euopress' style will like the familiarity which will see them through all the key stages of the, dare we mention it?, National Curriculum. Whether you agree with the Government or more precisely,



John Patten's compulsion for testing, or support the teachers in their rejection of the timing and methods, ADI should prove helpful for children's development in increasing the skills learned at school. It helps them to understand that Amigas are more than games machines and should stand them in good

stead to become intelligent readers, as of course, all **AUI** readers are, in the years to come.

70%

aideo yc

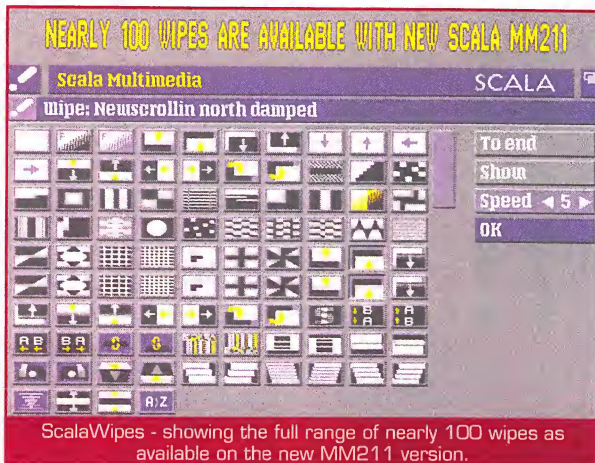
Hailed as the OpalVision basher from HiQ - this module, which was mentioned in the NewsFile in the August issue, comes in a compact box that matches the Amiga livery and measures just 5"x4"x2". It plugs into the Amiga video and parallel ports and provides a number of graphic processes, supporting all Amiga resolutions up to a maximum of 724 x 566 pixels in overscan mode.

Features include: Broadcast quality RGB output with three video levels. Double buffering and superior compression for animation. Built in digitiser for instant 24 bit grabbing. Hi8/SuperVHS genlocking capability.

The built-in 24 bit paint package is "AVPaint" which requires AmigaDOS 2 or above, 2 meg of chip and 2 meg of fast memory, and a 68020 or higher processor.

AVideo is a product that, we are told, will continuously evolve and HiQ intend to produce constant improvements and additional features. They are keen to hear from programmers interested in producing complementary software. For information

regarding this or the product itself, contact HiQ Ltd, 176 Kenton Lane, Harrow, Middlesex, HA3 8SU. Telephone 081 909 2092. There will be a full review of this interesting item in a forthcoming issue.



scala

Scala MM200 has been replaced by MM211 with full support for the AA chipset, 24 bit palettes and AmigaDOS virtual monitors. Performance of the Scala wipes have been improved, other bugs fixed and a 'utility launcher' can now start other programs from the Scala system menu. All Scala program files are now located in the

Scala systems directory, which makes for a faster and more efficient workflow.

If you are upgrading from an earlier version than Scala MM200, remember that you must have AmigaDOS 2 installed on your Amiga.

Scala has its own BBS in Oslo, Norway and can be contacted on 010 47 22 36 28 28 where you can reach the developers of Scala direct.

THE VIDEO COLUMN

Alan Puzey reports on

the new products,

updates and the ideas.

They welcome your sharing your Scala experiences, uses and tips with other users.

Contact Scala at Mill Studio, Crane Mead, Ware, Herts, SG12 9PY. Telephone 0920 444 294.

Video Graphics Collection

There was a lot of interest in this collection when I first wrote about it a few issues back. Well, I can now report that this collection has since grown from fifteen to forty disks.

New titles include COMPUTER GENERATED ART TOOLS, MANDELBROT EXPLORER, IMAGE PROCESSOR, 3D DESIGNER, PICTURE TOOLS, CAD MASTER, ANIMATION ASSISTANT 2, HYPERMEDIA, CLIP ART and lots more VIDEOFONTS disks.

There is a disk entitled 24 BIT which allows you to convert various 24 bit images to 8 bit images and also contains ADPRObatch which makes that ever popular program, Directory Opus, batch process Toaster images using Art Department Professional. Very useful if you're using NTSC and a Toaster! Another disk, AREXX ACCESSOR, provides you with lots of macros to use within Art Department Professional.

For a four page document detailing every

disk, or the disks themselves - contact Peter Graham here in the U.K. on 081 848 7398 or in the USA - Geoffrey Williams, 1649 Arcane, Simi Valley, California 93065.

A word of warning to our readers about these disks in particular, but also concerning public domain disks generally. One reader sent me a PD disk purporting to be one of these AMIGA VIDEO GRAPHICS COLLECTION, but it was less than one third full, with many of the original files missing -



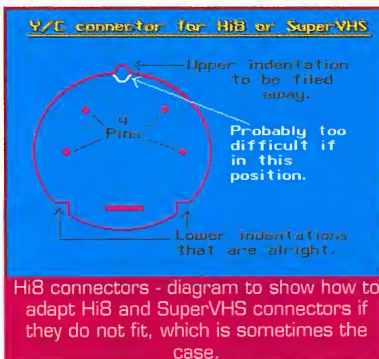
believed put on other disks to pad out their library and make more money! All these disks should be 95 to 100% full so beware of unscrupulous PD libraries; in this case, why not contact the ones specified above. **a**

H•A•N•D•Y T•I•P

I've received queries regarding problems with the Y/C plugs and sockets on some items of Hi8 and Super-VHS equipment. This includes camcorders of these formats, digitisers and video editing equipment.

As with so many things in our lives, it seems these are far from standardized. These plugs are of a four pin variety with surrounding metal collar. The metal collar has three indentations - to aid location when inserting the plug into the socket and to prevent damage to the small pins by rotation of the plug within the socket. This layout may be seen in the accompanying diagram.

It appears that whilst the pins and two lower collar indentations are always (as far I can gather so far!) in the same position, this is not the case with the single upper indentation. Some sockets have the indentation



pointing downwards and others have it pointing upwards. Typical!

AUI has the following handy tip to help you overcome this problem without buying yet more cables. Most of the cables I've seen have the indentation pointing up on the plugs and it is only a quarter of an hour's

work to file away this indentation. The two lower indentations are sufficient to prevent undue movement of the plug in the socket.

If you do find your cables have the indentation pointing down, this would mean filing away the indentation within the plug - a far more daunting, if not impossible, proposition! In this case you may well be advised to get the alternative set of cables. This tip certainly works - I've had to do it myself to connect my Canon Hi8 camcorder to the VideoPilot editor.

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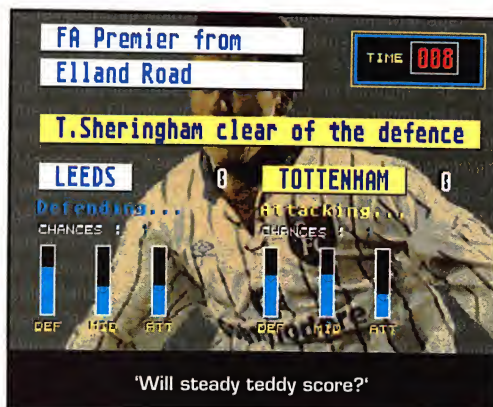
The team was not doing at all well. Mind you, that was always going to be the case, ever since Jones, last season's leading goalscorer broke his leg in a pre-season friendly. There was just not enough money to go out and buy someone with a decent left foot, what with attendances

before the half time whistle, which was fast approaching. Looking at their tactics, it seemed that they were playing a short passing game, to complement their strong midfield, and maybe, just maybe if I switched our strategy to a long ball game, cutting out their middle, and favouring our fast

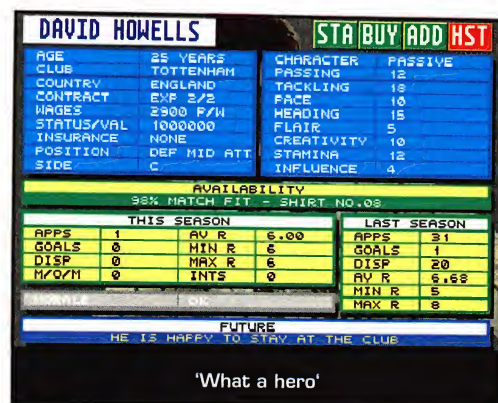
Running a company is not just all about power lunches as Andy Moss finds as he takes a look at some of the Amiga management sims.



'The main menu'



'Will steady teddy score?'



'What a hero'

dropping and things looking a bit lean on the sponsorship front.

Still, I suppose I still had the backing of the Chairman, although we all know what a vote of confidence from the Board means for a soccer manager!

Anyway, as I said, the team wasn't doing well. It was the

forwards, we might just sneak it.

I did just that, and almost instantly we had two shots saved by their keeper. I breathed a sigh of relief, this looked better..

Almost on the point of half time we got the equalizer, a shot on the volley from Anderton, and went in with our heads held just a little higher.



'Paris - in springtime?' - Railroad Tycoon!

I had a whole bunch of office stuff to get through, at least two players contracts were up for renewal, there were five potential ground advertising deals waiting to negotiate, the undersoil heating was playing up.

second round of the FA Cup, and we had drawn a team from the lower reaches of the Third Division, always a bad omen, and true to form were a goal down.

Apart from the odd goalmouth scramble our attack was non-existent, and it was one way traffic. I had to do something, and pretty quickly,

We almost made it. We even went ahead just after the break, but they got a fortunate penalty, and I had to substitute Flowers after he pulled a hamstring, and that lost us our pace up front. Putting on a defender in his place to try and steal a draw proved our downfall, as their unrelenting pressure paid off and they got one from a corner late on.

But that's football, and we just had to bounce back in the league against Arsenal on the Saturday. Before all that though, I had a whole bunch of office stuff to get through, at least two players contracts were up for renewal, there were five potential ground advertising

deals waiting to negotiate, the undersoil heating was playing up, and I had to see if one of our youngsters could break into the first team, the coach swears that he will be the next Glen Hoddle. If he were, we could sure do with him, after all we were due a small miracle.....

This is a true story... Well, it's taken from my experience playing the new 93 version of Domark's CHAMPIONSHIP MANAGER, which along with Gremlin's PREMIER MANAGER leads the field for footie management sims.

Role playing is not just all about monster bashing and treasure hunting. True role playing gives you a wonderful opportunity to drop everything from your real world and enter a new life as a pilot, or racing driver, or even Prime Minister, if you're a real machochist..

The possibilities are endless, but for me it is the management sims.. I get a kick out of starting with very little and seeing if I can get it to grow through the roof! In the footie sims I started in the lowly non-league Conference division and made it into the Premier League winning the Double one season, and the European Cup the next. Ah well, it's nice to dream, isn't it?

tycoonery

If you thought business management sims are just boring sceens of spreadsheets and graphs you are very wrong indeed.

What about another of my all time favourites, Micprose' RAILROAD TYCOON, an absolute stormer of a game that catapults you back in time to the dawn of the railroad, in either the good ol' USA, Europe or England.

Balance Sheet: 1923			
Belms & Brussels RR			
	Total	YTD Changes	
Assets:			
Operating Funds:	£ 609,000	150,000	
Treasury Stock:	£ 5,430,000	850,000	
Other RR Stock:	£ 0,000	0,000	
Facilities:	£ 1,750,000	0,000	
Industries:	£ 2,500,000	0,000	
Real Estate:	£ 0,000	10,000	
Track 864 miles	£ 1,236,000	0,000	
Hollins stock:	£ 11,770,000	729,000	
Liabilities:			
Outstanding Loans:	£ 0,000	0,000	
Stockholders Equity:	£ 990,000	0,000	
PROFIT:	£ 11,270,000	YTD: £ 60,000	

'A good profit so far'



Although there are similarities to AIRBUCKS, your challenges are quite different. For a start you are very firmly based on the ground, and it is the ground itself which will help or hinder your initial progress. Laying tracks on hilly land or

BEING THE BOSS

While we're in railway mode, check out Maxis's 'A TRAIN', not unlike RT in theme but altogether different in play as with this one you get to choose from six different scenarios, from turning simple farming countryside into a teeming metropolis with footie stadiums, factories and high rise skyscrapers, to an already well developed city that is literally choking to death through poor planning. The rail system is at the heart of it all, key to providing all the necessary freight and transport that will shape your world. A TRAIN tackles all the problems that Railroad Tycoon leaves you with, and these two complement each other rather than offering you more of the same.

Fed up with a balance sheet approach? How about FLOOR 13 from Virgin. Set in present day Britain, it tells of a secret government run body that must advert scandal, wipe out subversive elements and generally protect the government from embarrassing incidents so that it doesn't fall from grace. As Director General of this corrupt agency, you are not only totally responsible for its operations, but must also ensure that no one realises that you exist, which is not easy if you are sticking your nose in other peoples affairs!!

The way in which the game reveals information as half clues and red herrings means that careful cross checking of intelligence and realistic deployment of the right team at the right time is critical to being a successful boss.

Finally, if you fancy yourself as the Ultimate Chairman of the very highest authority, have a look at CIVILIZATION from Microprose. The game in its most simple analysis puts you in charge of a tiny tribe of primitive people, way back at the dawn of time, with a mission to guide them through the ages expanding, learning, inventing and ultimately creating a modern day world wide nation of souls. As someone once said, the programmer Sid Meir has 'not so much pushed the strategy envelope, he has driven over it with an articulated lorry!!'

It is a huge game that encompasses not only thousands of years, but many famous historical figures along the way.

over water is hugely expensive, and not recommended.

The art of success in this game is to identify where the need for transport exists in the country, and build track to accomodate it. Industry needs certain raw materials, find out where the mines are and lay track and build stations. Look for good farming country, and transport wool to garment warehouses. Find a decent size town with a good population and not only give them a good ride, but how about building them a hotel to stay in while they're waiting for their train?

RT also has a number of priority emergency missions that come up like racing a needed vaccine to a remote town, which should you get there ahead of the competition will prove very profitable.

airlines

In Impressions AIRBUCKS I went back to 1942 and became an aviation entrepreneur with a vision to own and control a

airline with a worldwide route network. I was given a small DC3 Dakota to start with, along with \$100,000 and small base in Miami. Against either three computer controlled competitors or three friends, I endeavoured to expand my company as quickly and of course as profitably as possible.

Unlike most adventure games where once solved the desire to do it again is somewhat distant, the management sim can be played at a variety of levels, which in most cases means you are up against harder and harder challenges to your profit making by either cleverer opposition, lower potential profit making or higher base prices for your assets. In all these games you must have an aptitude for figures, and you need to understand at least the basics of a balance sheet, but the computer takes all the hard

Just buying new routes and new planes was not good enough, you had really to become a devious operator. One way was to check out the fares of your competitors, and beat them, hoping to increase your passenger load, or increasing the freight storage capacity on your plane, sacrificing passengers for freight profit. Choosing routes

The art of success in this game is to identify where the need for transport exists in the country, and build track to accomodate it.

is critical, short hops may show a small profit, but a longer haul, to a bigger City say Miami to New York may show bigger profits.

Choosing when to invest in new planes, or improve on



board services, or what times to fly and managing all the routes are all key to making your fledgling airline a success. As the years fly by, and your decisions prove right, you get to the present day, and all the pitfalls of fuel pricing and hijackings. Not to mention, of course, the sheer thrill of being able to afford to buy Concorde!! **a**

challenging

work out of number crunching and it is very easy to see where you are losing or making your money.

It does stand you in good stead for the real world, and who knows, maybe Alan Sugar modelled Amstrad on a game he used to play in his small terraced house in Hackney? Though perhaps he isn't the most virtuous model to follow... The difference is that in computer role playing you can always start again if your original plan doesn't work. Sadly in the real world that is a luxury that may not always exist.

entertainment now!

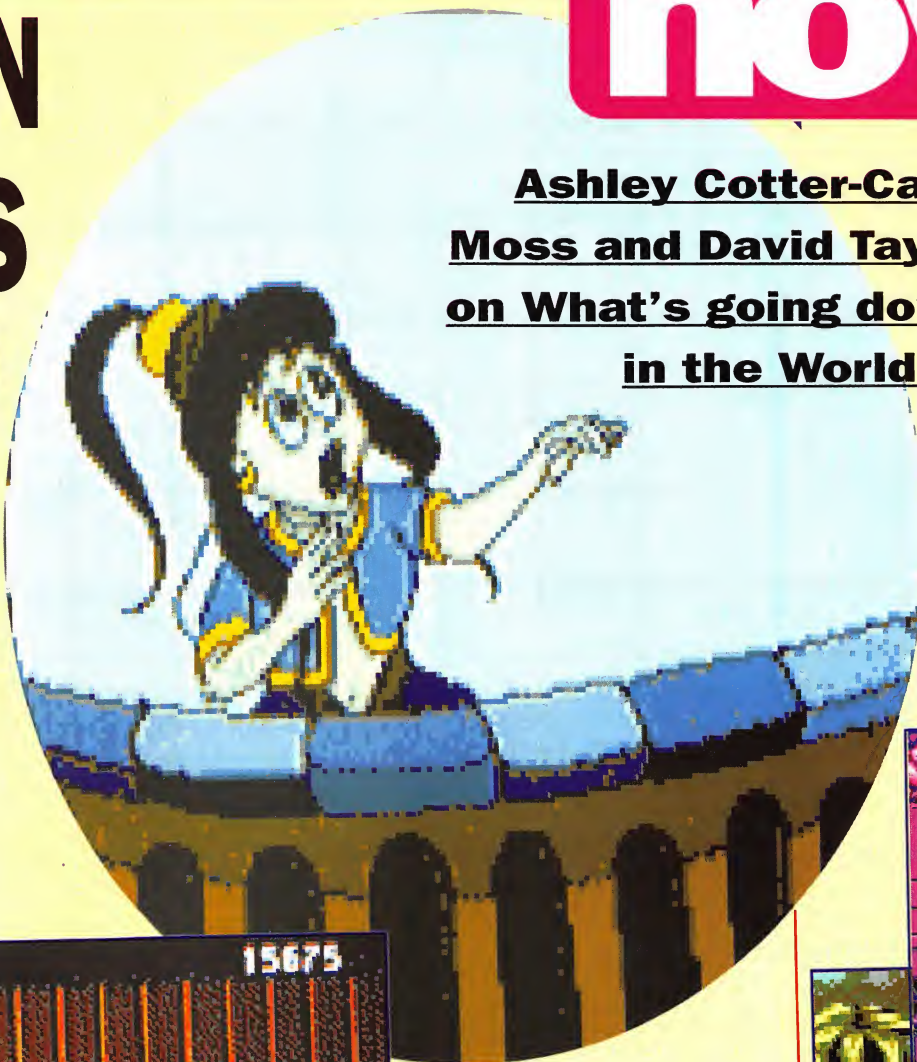
ARABIAN KNIGHTS

KRISALIS

£25.99

What is it about platform games these days? Has the console revolution finally made everyone go mad? Almost every other game seems to be a leap up, grab some things and shoot other things affair. That said, it has meant that all the practise has made the software companies a lot better at producing them.

And so we meet Sinbad Junior. He's an apprentice gardner working for Caliph, who happens to live in the shadow



Sinbad's girl spies her bank manager.

Below: Why are aliens green?
Bottom: Our hero blasts off a few rounds against an innocent vine.



Sinbad junior to the rescue!

of an evil tyrant, Vizier. Just as Sinbad sets his eyes on the daughter of Caliph for the first time and falls in love with her (just like in the movies), Vizier sends a Demon to steal her away. Boo! Sinbad Jnr to the rescue! Hooray!

Your search will take you over sea and under stone, through fire, ice and water, into forests and out of dungeons. All of these are made up of platforms and ladders (quelle surprise) and may involve beating things up and collecting

other things (shock horror).

Secret rooms appear behind Sinbad's sword, while the guardians of the evil Vizier are also dispatched by it. Many rooms have puzzles which need to be solved, usually involving arcade reflexes and timing. While Arabian Nights seems to be a big game, the levels fly past beneath your little feet. At odd intervals, the program pops

in a copy protection to foil the pirates. Good show.

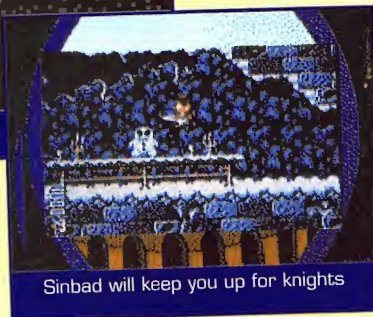
Magic items appear, which may be collected - but you can get by without some of them, if you care to try. But in other places there are genuine puzzles, where some items need to be traded for others. Throughout there are jewels to

be collected and these may be bartered with for other more useful things at times.

Arabian Nights is a nicely presented and amusing game. Krisalis has wisely

concentrated on playability instead of graphics, which ensures that it will sell a fair few copies of this game. If you only buy one platform game this month, it should be this one.

81%



Sinbad will keep you up for knights



Flashback

DELPHINE/US GOLD £30.99

From the people who gave us Another World, comes its pseudo-sequel, Flashback. Although the stories are unconnected, the gameplay and animation are recognisably similar in both. In this latest offering, Delphine, ze clever chappies from across ze channel, have attempted to avoid any of the criticisms which were levelled at its predecessor. The sprites are smaller and therefore much faster and the action is non-stop, making for an almost perfect game.

I say almost perfect and

perhaps it would be best to start with the grumbles and get them out of the way. The game's only real fault is a lack of originality in the story line, which seems to have been inspired by Arnold Schwarzenegger's career, since it shamelessly plunders the plots of Total Recall and The Running Man. Conrad, the hero, finds himself on another planet, being guided by holographic messages sent by himself and required at one point to play a gameshow for his life, all in an attempt to overcome the alien intruders. If you can ignore the whiff of plagiarism floating over from the movie world, and why not, then you'll be hard pressed to find anything else to complain about.

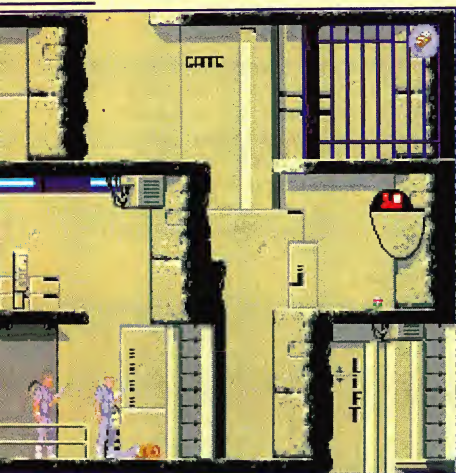
The awesome graphics of Flashback ensure that first impressions are entirely seductive. Tempting as it is to compare the sprite's movements to those of Prince of Persia, I won't, simply because I think they're even better. The whole colouring and tone of the graphics are heavily stylised in much the same vein as many continental cartoons. Conrad blends perfectly with the backdrops and looks all the more convincing for it. He fits perfectly and you can't help but feel you're living a cartoon.

The intro shows the hero being chased down and crashing in a jungle, which is where you regain consciousness, take control and begin the game. Luckily you remembered to bring your automatic pistol with you, and even more miraculously it's one with an infinite supply of bullets. As there's no need to worry about ammunition, one of the best things to do is spend the first few minutes drawing your gun and blasting off as many rounds as you can. With the wonderful sound effects of the gunshots and the detail of the empty shells pumping out of the chamber, you can almost feel the recoil.

Because of such amazing graphics, it will come as no surprise that sounds are sparse, but the lack of in-game music somehow makes the game more realistic. Few and far between though they are, the effects are nevertheless quite well sampled.

At the end of the day, Flashback isn't flawless and once you've mastered the moves, it's quite easy, but it is a highly polished product that shows the quality of games attainable. Any shortfall in plot or sound is made up for by the breathtaking graphics and addictive, if somewhat simple, gameplay. A game of this standard is sadly all too rare and Flashback deserves the status it will doubtless attain.

92%



Two heavies in shell suits take a dislike to Conrad.

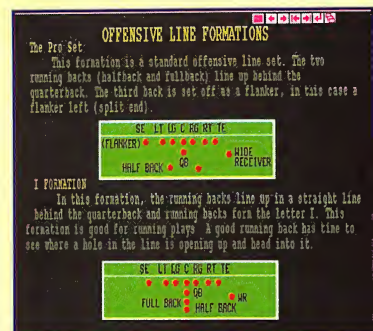


SOCCER KID ON THE BENCH(MARK)?

According to Krisalis (and they would say so, wouldn't they?), Soccer Kid has been raved about by the whole industry since it began to be developed, looking set to blow away Zool, Fire & Ice and Putty when it finally shows up. And let's just play a little game - guess the genre?

Platform, anyone? Well, if it is to sweep the awards for platform games, there will have to be a lot of unique features and some pretty neat graphics. The graphics look all right,

true enough, so I will reserve judgement on the gameplay until the game is released. Just one final word from the press release: "Using a dual playfield mode and enhancing the sky using copper effects gives the game a very console-oriented look." And so who the hell wants the Amiga to run games looking like they come from a console? Soccer Kid will set you back £29.99 and its release has been set back until August/September. Full review then.



TOTENHAM, TOTENHAM, NO-ONE CAN STOP THEM...

I wonder whether Ozzie Ardiles can steer the Whites to the top of the Premier Division next season? If so, surely someone will produce a "League Champions" type of game for them - just as Krisalis has done for Manchester United, a title which has done very well for the company over the years. Imaginatively titled Manchester United Premier League Champions, it's the third (and hopefully final) game in the series and the most expensive at £29.99. Don't hold your breath - it's not due until the autumn...

SCOUSERS SELLOUT

After news that the publisher won the Queen's award for export, the latest news from Psygnosis is that Sony has bought the company out for "an undisclosed sum," reliably rumoured to be in the region of a cool \$30 million - some £20 million. Psygnosis has long been thought of as something of a pioneer in the games market and they were the first in the UK to produce a for the Amiga, Brattaccus. It has also perceptively always been the first to shout loud about the future of CD technology in the games market. In fact, it was at last year's Develop 92! at the Autumn ECTS that Ian Hetherington of Psygnosis was heard to say: "We all have to use our skills to get a foothold in the CD market before the Japanese and Americans come in to dominate the European market place." Did he know something we didn't, I wonder? At twenty million smackers he and his partner Jonathan Ellis must have been doing something right.

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DUNE 2

VIRGIN £34.99

The despised Ordos are harvesting spice that should rightfully belong to House Harkonnen.



The wise old man from the Harkonnen House offers you advice

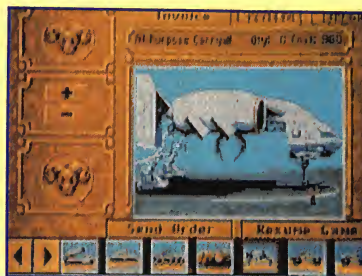


Exit

GAME OF THE YEAR

There's plenty of digitised speech to warn you of enemy approach or the destruction of said foes, while the small yet detailed graphics add plenty to the atmosphere. The icons for the buildings will remind you a lot of Sim City, while the one-team-on-one approach smacks of Populous - so the game's in good company.

Two things stand out about this game in my mind: the first is the feeling of not being alone on the planet, made worse when your radar switches on and the enemy start to appear; and in combat, when your re-inforcements are slow to arrive and guns and rockets are flying at you from all angles. Heaven.



One of the many vehicles available to you



Melange brings out the worst in everyone



A harvester. Pretty, isn't it?

VERDICT

Graphics:	78%
Sound:	75%
Game Play:	96%
Decision:	94%

Melange. No, not something Tiddles picked up from the orange tom cat up the alleyway or a mixture of things French; a kind of spice which grows in the sand on the planet Arrakis. Now, if this were merely the intergalactic equivalent of nutmeg - very nice on a piece of MoonApple pie, but otherwise ordinary - then you'd be quite justified in wondering what all the fuss is about. Why not pop to the local Star supermarket and grab a couple of jars?

Well, the ethos of Dune is that Melange is a substitute for money. For one thing it is incredibly rare. Second, it is the primary ingredient in the essentials of intergalactic travel. And third, it can prolong human lifespans for many hundreds of years. Ask Bob Monkhouse.

Three major superpowers are after the spice on Arrakis and any may be adopted by the player. They are Atreides, Ordos and Harkonnen. Each house has a different shield, a different appearance and vastly different ways of treating the enemies that they encounter. One final difference for the sake of gameplay is that Atreides troops are blue, Ordos green and Harkonnen red.

To give you an idea of their primary differences, take a dying

man in the street. The Atreides soldier would put his jacket under his head, tend his wounds as much as possible and do his best to help. Your Ordos warrior would just stroll straight past him with hardly a glance; while the Harkonnen killing machine would spit in his face, jump up and down on his chest to give him collapsed lungs... and so on. Having said that, should the dying man be lying next to a patch of the orange-red Melange, all would ignore him and start mining it. Mining is done using a harvester. Of course, you first have to establish a base and build a refinery for the harvester to work from. A power supply is needed, somewhere to store the spice you've harvested and some kind of defence for the base in case some nearby group of Harkonnen take an interest in your goings-on. Luckily, you begin each mission with a construction yard, a team of troops and armoured vehicles and a bank balance.

From there, it's up to you as to how you'd best spend your money. But harvesting spice is usually essential, although some missions may simply be seek-and-destroy affairs. Even so, you'll need money to build new units and money

means Melange. Once your base is finished, you'll need to discover Melange to mine. This is done by sending out troops to spy nearby sites and then sending your harvester over to start on it. If there's a very rich vein, the harvester will return to base, empty its tanks and then go back for more. If the source is exhausted, you'll need to point the harvester in the direction of a new area of spice.

The troops can be given four orders: Guard, Attack, Move or Retreat. Retreating units make straight for the base, which they then guard automatically. After a Move command, troops go into Guard mode without further instruction, while those ordered to Attack will pursue their target and fight it to the death. There are lots of subtle ploys to adopt in combat, such as running over enemy troops with your harvester (yuk) or attacking enemy outposts. With your objectives complete, you will receive a rank and be given a new task to perform.

Dune 2 is one of the rare strategy games which grabs you from the off and doesn't let go. There are many types of strategies you may adopt, indeed they are only limited by your imagination.

PREVIEW

GLOBAL GLADIATORS

VIRGIN £25.99

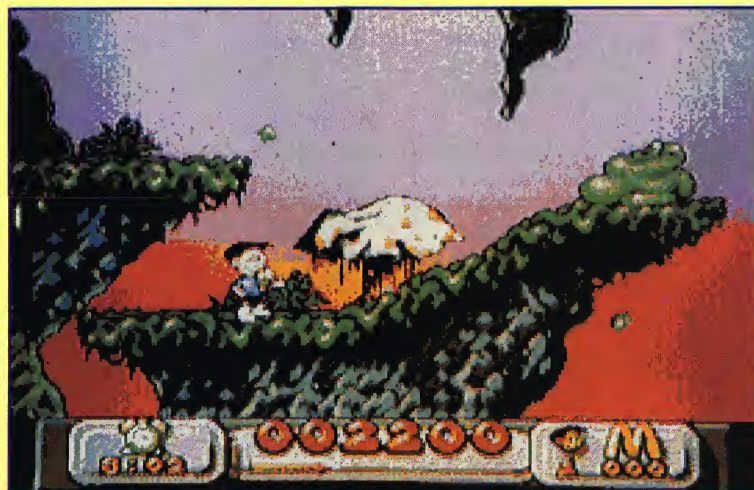


Oh what a beautiful planet, oh what a beautiful time, I got this beautiful feeling, everything's turning to slime... Argh!

Yes, it's slime time again. Not since Ghostbusters have we had so much of the green gloop to deal with. But this time, it's the whole of the lovely planet Earth which is under threat of oozing to a slow, pond-weed death. Unless the Global Gladiator can do anything about it, that is!

This is another thinly-veiled attempt by the MacDonalds hamburger chain to show that they really do care about the planet and, in fact, do not knock down millions of acres of rainforest to produce beef (I would have thought that there was enough beef in one cow to do the whole chain for a year anyway). The double inverted U of the MacDonalds logo grins at you from the title screen and it's our old chums Mack and Mick who do the Gladiators impersonations.

The surroundings are very lush and green, looking for all the world like one of those fabled rainforests I mentioned earlier. But all similarities end there. Slime creatures shaped like potatoes, like giant peas, pools of ooze, in fact



I've heard of a green policy but surely this is taking things too far?

gunge and pus creations of every description do their very best to halt your progress through the world. Sometimes you'll even encounter monstrous machines which catapult snot into the air to shower down on your head.

You're not utterly defenceless. In fact, just like the IRA, good old Ronald has supplied you with the very best in weaponry to do battle with. By ducking down or leaping upwards, more width may be found for your weapon. Other aids, in the shape of extra energy or time,

restart points and M symbols should be grabbed whenever possible. In fact, if you neglect the Ms, you'll not be able to complete the level.

Everything about Global Gladiators as it stands is average, except for the speed of the scrolling, which is exceptional. Graphics are excellent, full of cartoon style character, sound pretty good also, while the colour scheme is very atmospheric. Who knows what little goodies will have been added by the time it reaches the shops?

SOAP BOX

To Review, or Not to Review?

A number of readers have written to Amiga User International expressing some concern over the speed with which Andy Moss and myself review games. They have read about the game some months before in other magazines, seen 'Exclusive' reviews giving fantastic marks for products, which it appears we don't cover until long after they are available in the shops.

I would like to appeal to your imaginations for a moment.

I am not aware of your games-buying habits; but let us assume for a moment that you purchase one title per month. Now, twenty-five or thirty pounds is a lot of money to waste on a 'bad egg', which is why I assume you bother to read reviews at all, so let me show you two hypothetical scenarios.

In scene one, Joe Amiga makes his monthly visit to Game Ltd with the funds to buy a single game. He's been drooling over maybe twelve different products all month and has no idea which one to choose. He's an avid reader of MEGAstupendousHYPERmag, which has 'reviewed' this month (on the very shelves in front of him) no less than eight games to which it has judiciously awarded over 85%.

Joe Amiga rubs his hands together and approaches the counter. "Excuse me, do you have a copy of AutumnPlatformGame by MindProseGold?" he asks the manager. "Hang on, I'll check the stock order book," replies the manager. He returns a few moments later. "Not DUE out until October, if nothing puts back the release date by a month or few." Joe Amiga slopes over to the shelf and buys Summer Scorchers, a massively-hyped game which was reviewed in his 'magazine' at Christmas and which is only now being advertised. It's awful, not at all what he was looking for. Again.

But in scene two, Joe Amiga reads **AUI**. He's a little surprised that there is so little in the way of EXCLUSIVE screaming from every page - but what's this? Isn't that a game that he saw on the shelf earlier? And that one. And that one! Amazing. Joe Amiga suddenly realises that he CAN buy a magazine which only reviews games that are available to buy! He duly goes and buys one.

And that is the root of our 'problem', as simple as that. You'll notice that there is a preview of Global Gladiators this month - if you want to see more of that kind of thing, let me know. But the most unfinished game is when it gets reviewed is complete, but without the fully-printed packaging. By the time you pick up the magazine you can also pick up the games.

Which is how we'd prefer to keep it. After all, if you can keep your head when all about are losing theirs, who's the fool?

Ashley Cotter-Cairns

Despite some people's claims about Lemmings, the perfect game does not exist, but a handful of games have attained the level of excellence which the gaming public craves. Most types of computer games have their jewels, which manage to combine all the necessary features - graphics which grab the player with their beauty, stunning sound and the most elusive element, playability.

In the oldest kind of video game, the shoot 'em up, there have been countless attempts, but few accomplishments. Project X challenged the Bitmap Brothers' aging masterpiece Xenon 2, but Team 17, its creators, made an error in judging the standard of difficulty. The result is a stunning game that few people can manage to see beyond the second level of.

Recently, Electronic Arts have released a more convincing attack on the genre. Desert Strike, whilst not entirely tasteful in its story line,

with. The sprites' animation and the backdrops are second to none. It would take a strong will indeed not to become hooked from the moment you load it.

brain

For those who enjoy software which taxes the brain as much as the trigger finger, the adventure game has always held the greatest allure. Horrorsoft gave this area an injection of life with their game Elvira. Some players are not keen on its liberal - or illiberal - scattering of gore, but the surprising ease of play helps set it apart from other games which suffer from poor control systems. In addition, the intellectual side of the game is sensibly broken up with fight scenes requiring fast reactions from the player. Suitably eerie tunes haunt its visual excellence, making the game comprehensively competent and horribly enjoyable.

In contrast to the darkness of Elvira is Lucasfilm's The Secret of Monkey Island which has become the king, queen and indeed entire royal family of adventure games. The humour in this easily controlled animated adventure sustains the player's desire to continue despite the inevitable frustration with its tricky puzzles. Not impressive by today's or even by its

own sequel's standards of graphics and sound, Monkey Island is the perfect example of the success that playability confers. The sequel certainly improved many areas of the game, but was betrayed by a trite and unsatisfactory ending.

sports

Disappointing also is the general quality of another genre, the sports simulation. Some, such as Sensible Soccer, are adequate, but most sports seem to refuse to make the transition to computer with any conviction.

It is strange then that the best game should fall into this category. Speedball 2 is a simple ball game transformed by the elements that are the forte of computer games, the flouting of physical laws that nature insists real sports obey. In the world of Speedball 2, created by the Bitmap Brothers, violence and deliberate maiming of the opposition is applauded, and both

MY TOP TEN AMIGA GAMES

**David Taylor, addict, picks his
ten best games across the
genres.**

the players and the ball can be affected by on pitch effects.

Even better than its impressive predecessor, the game's addictive qualities keep you playing until, and for a long time after, your team, Brutal Deluxe, has bested the Bitmap's babies, Super Nashwan. The two player option ensures that having honed your abilities against them, there will be few things as joyous as playing your friends and embarrassing them by not only scoring the points but by also destroying their team in the process.

As unrealistic as Speedball 2 is Crazy Cars III, which contains all that is entertaining in driving games. The competition, and even betting, against the other drivers, together with police chases and the chance to continually improve your vehicle keeps you playing away until your eyes water from concentration as you try to move up the divisions.

Pinball Fantasies is another wonderfully addictive simulation that will continue to captivate its interactive audience. The graphics and features make it superior to its predecessor Pinball Dreams, but as a pinball emulator the only grouch is concerning the lack of multiball which the layout of the machine on the screen denies.

simulation

To return to the games that ignore physical capacities, there exist two god sims which are simply outstanding. Both allow you to

manipulate your people, in different ways, in your attempt to eradicate the opposition that has cheekily settled on the same planet as your good (or not so good) self. Populous 2 affords great amusement to the player, with success on each level requiring you to plague the enemy with divine effects ranging from rains of fire to tidal waves. Divine retribution has never been so much fun. The more tactical Civilisation, allows you to build an empire that begins with soldiers armed with sticks and concludes by nuking the other civilisations off the face of the Earth. It is also possible to win by investing in science and gaining the technology to beat the others to the stars, but let's face it, to the



First Samurai: Master, I shall not fail you.

is certainly a step forward. It overcomes the tedium of simple one way scrolling games by allowing you to roam freely and decide the order of targets. Despite the omission of the traditional power-ups, there are still plenty of items to collect. Its decent graphics, convincing sound, constant and engrossing action, all crowned by excellent presentation, make it the new champion of the shoot 'em ups.

Another classic kind of computer game is the platform variety, and yet there are only two of exceptional quality. The first, aptly enough, is First Samurai, which escapes the usual pitfall of platform games, by making the completion of the game not reliant on the player memorising an extensive level layout. This, with meticulous graphics and sound, goes to make a reasonably addictive game. Flashback is the other winner in this category. Although it is a little lacking in originality in plot and quite easy to complete, it is hard truly to find fault



Enter the Speedball stadium and prove your worth

megalomaniacal players of such games, ruling the world with a fist of iron is infinitely more attractive than this pacifist option.

These ten classics, which constitute a varied collection of software of the highest quality, will eventually be surpassed by others. Most of them though are veterans that have seen off a good few competitors and still have a great deal of fight left in them. **a**

SYNDICATE

Bullfrog/Electronic Arts £34.99

Call me old fashioned if you will, but the idea of ruling the world with an iron fist has always appealed to me. Fortunately computers games are nowadays there to satisfy this appetite without the need for me to go out and raise a private army! Conquest of the world is the prime, and indeed only, objective in an abundance of games (Bullfrog's own *Populous II*, for instance), but *Syndicate* adds a new variation to this theme.

The futuristic world of *Syndicate* is one controlled by the powers of (you've guessed it!) syndicates, but you do not play the role of the ruthless dictator, dishing out the orders and admiring the results. You are in command of a team of cyborgs, who obey the directives of the chief of the syndicate for which you selflessly toil. This dedication requires you to engage in missions involving laying waste to the enemy syndicates' countries.

The game requires various skills from the player. Firstly, you must equip your team and decide how much to invest in developing new technology (for such things as Uzi machine guns and flame throwers) for your team in future. Money is scarce and it is essential to strike an appropriate balance between acquiring decent weaponry immediately and saving enough cash for later missions. Extra money can be raised by increasing the taxes on countries which you conquer, but beware of the population rebelling and necessitating the re-conquest of the realm (which drains syndicate resources).

This part is, to an extent, merely the shell of the game, and the main action occurs when you take your team out on a mission. You can decide on the size of your team, taking between one and four of the eight cyborgs which you initially have access to. The main game has a distinctly "Bullfrog" feel to it. The sprites look and move in the same style as those in *Populous II*. Controlled with the mouse, the team moves around shooting enemies, police and civilians with

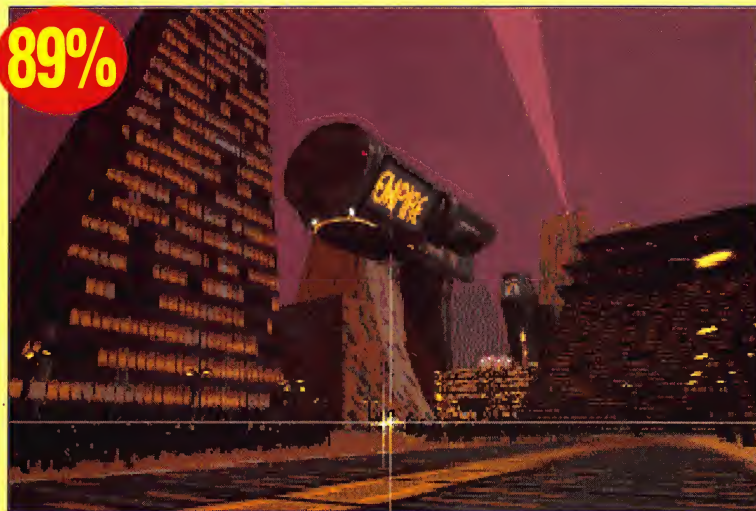
joyous abandon. In addition, you have access to the euphemistically named "Persuadatron" that "fires a small dose of chemical which renders the target totally open to suggestion". This means that you can "acquire" civilians, police and, most importantly, enemy agents. All of these will boost your finances if you complete the mission, as you get paid for all people "persuaded". But enemy agents captured this way can be transformed into cyborgs working for your syndicate.

As the game progresses, the missions which become available spread, to give you the choice of which to accept. If you find one mission too difficult to accomplish with the available technology, it is possible to leave it until your syndicate has progressed to the state where conquest is easier.

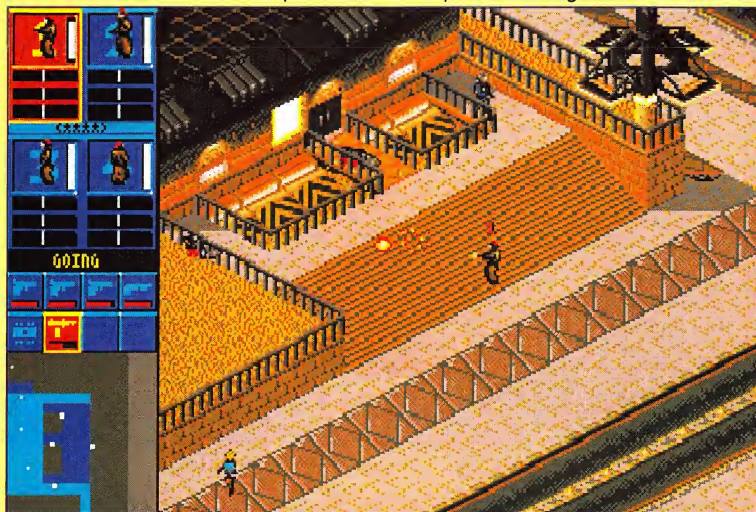
The graphics of the game range from the sometimes merely adequate (for instance, characters occasionally appear and disappear when behind buildings) to enjoyably outstanding (such as in the intro and end sequences). The in-game sounds of gunshots and the wounded are fine, and the only thing left to be mentioned is the result of these visual and aural effects. Personally, I enjoyed the game immensely, but there are parts, for example, where an unfortunate character gets fried by the flame thrower and runs around in flames screaming, which some may consider unsuitable for the younger gamer.

However, if you want a game where mindless violence blends with tactical decisions, then *Syndicate* has a lot to offer. I found myself playing it not constantly until satisfaction was achieved, as I did with *Populous II*, but attempting it in two or three hour stints over a number of days. After being frustrated on a few occasions with one mission, it can be tiresome to try again the same day. Inevitably, however, you return to the game and succeed. *Syndicate* appears to me, therefore, to be the type of game which has the essential quality of lastability that ensures you get value for money.

89%



A mission completed and the empire starts to grow.



Some severe damage being inflicted on the police station.



An unfortunate is 'recruited' for transformation into a Cyborg agent

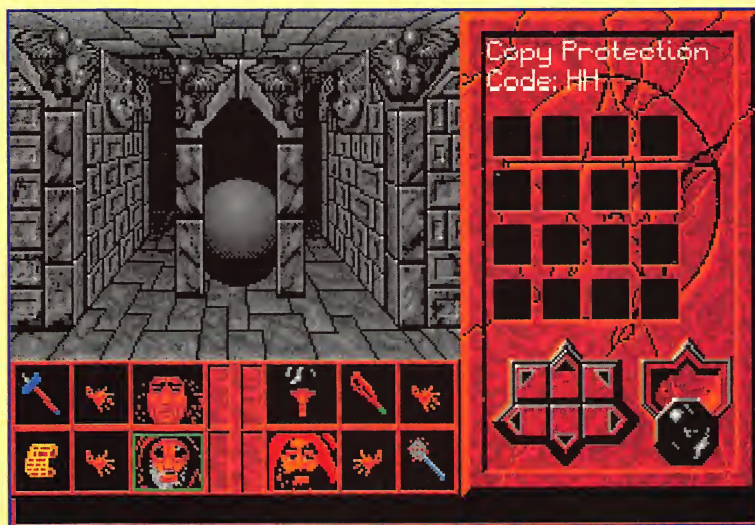
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ABANDONED PLACES 2

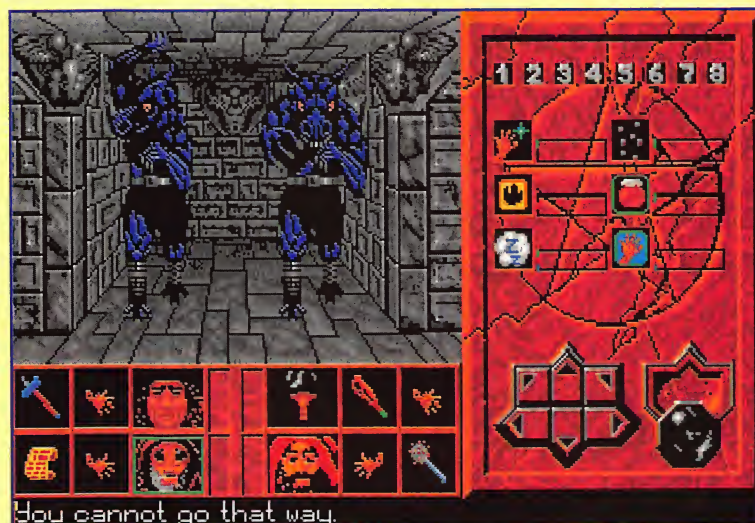
ICE 1 meg



The book of ancients where it all started.



Down in level 16 a strange shape ahead.



Pinky and perky don't look pleased to see me.



The face of doom. I hope you had three Shredded Wheat for breakfast.

Since the demise of Electronic Zoo, we were all waiting around to see just who would be the saviour of Abandoned Places, as it was such a good game, we all wanted a sequel desperately. Thankfully, the erstwhile boss of EZ, Stuart Bell, knowing that he had a surefire hit on his hands kept hold of the Abandoned Places team and set up ICE quick as you like, thereby giving us everything we wanted in Abandoned Places 2

Yes, folks even though Bronagh the Prince of Evil is dead, Pendugmahle the creator of Bronagh has returned to take his revenge for the death of his prodigy. Crossing the planes between the two worlds, he has emerged into the dimension where good defeated evil over four centuries ago (Was it really that long? Didn't seem like it). The descendants of the Ancients knew that the only hope for the kingdom was the return of the ancient heroes, and the holy Sword of Life.

The conjurors convened, and together they brought back the Sword, and gave it to their greatest hero... you.

From a technical point of view, AP2 is everything its predecessor was and more. It is bigger, with 23 levels, 32 pre-defined characters to choose from although you can, of course, create your own. A huge outer world is only bettered by an even huger set of dungeons that contain many never seen before monsters that are not pretty to behold.

AP 2 fits very neatly into providing owners of AP1 with a useful sequel that quenches their thirst for more, whilst providing a rock solid game for newcomers to the genre. Well done, Mr Bell, for having the foresight to keep hold of this gem, and we look forward to more from the AP team in the not too distant future, we hope.

89%

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NICK FALDO'S CHAMPIONSHIP GOLF

Grandslam 1 Meg

OK, let's get my credentials on the table before we start, because I have just about had it with reviews of computer golf games written by journos who don't know any better. Most of them wouldn't know one end of a club from the other, and more to the point are not remotely interested in the game. While I'm on my hobby horse, most of the programmers who create golf sims haven't got a clue about it either. Well, we all know that it entails hitting a small ball round a field into 18 little holes in the fewest tries, but there is much more to the game than just pretty graphics and smooth flight.

I play off a 9 handicap. What that means is that I am a pretty good golfer, about 9 shots a round worse than Nick or Seve. That, I immodestly think, gives me the right to tell you what is a good golf game and what is a bad one. And putting all the hype to one side, whatever you have heard about it, I can tell you that Nick Faldo's Championship Golf is a pretty poor show.

Once again we have a famous person putting - no pun intended - his name to a product that bears no resemblance to his own skills, just like the Jack Nicklaus series from Accolade. This attempt is almost impossible to play well, has zero feel to it, and spends too much time on the trivial dressing and nowhere near enough on the actual gameplay.

The view is the the now standard just behind the player position, which gives you a 3D view down the fairway, which is graphically quite pleasant. By moving the mouse left or right you are presented with scrolling information bars on either your club choice or ball position and wind strength and direction. Look at your lie, and then pick your club. Now comes the hard part. The swing. Leaderboard was the first game to develop the two press swing sequence which once mastered worked like a dream, and was copied by just about every other game that followed. Too quick and you hooked, too

long and you sliced. Simple. In reality the golf swing is in two parts, the back swing and the forward swing. This version has just about the hardest interface I have ever seen, with no less than THREE presses before you hit the damn ball! One to award an extra 10% power, and two in quick succession inside a space no more than half a centimetre wide! Impossible! Your state of ecstasy having managed actually to achieve the impossible, is quickly dissipated as you witness your ball either moving two inches or hurtling into the trees depending on the lie of the ball. When you finally make the green you have another challenge. How to read the speed of your putt. But, here, realising that they have made this game very tough to

play, Grandslam have built in a little margin for error as you can hole out even though it looks likely to miss! A mistake. Get the putting routine right first, and then make us work hard for our shots.

Two courses are provided, with the promise of more to come, but I wouldn't bother. Don't listen to anybody else, for me there are still only three golf games that are at the top of my tree, three masterpieces. World Class Leaderboard (Access) Microprose Golf, and PGA Tour Golf from EA.

Nothing else touches them for realism, although Ocean are soon to release something that will be a close runner.

45%



Choose your weapon.



Time flies when you're the driver of a train...

TRAN Silmarils

You have to hand it to the French, because they sure know how to dream up unusual subjects to write games around.

Transarctica is set on Earth in the future. In an attempt to halt the escalating greenhouse effect, scientists exploded two nuclear bombs, one on each pole in an effort to cool the Sun's rays with dust and steam. Of course, it all went horribly wrong, and deprived the Earth of the Sun's rays altogether, pitching the world into a Nuclear winter.

LEGENDS OF VALOUR

US Gold
1 meg

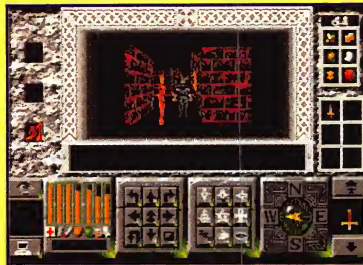
Welcome to Mitteldorf.

You have arrived in the City, which rests on the slopes of a volcanic island called Wolfbroad, and the scope for a lively adventurer to turn a coin and find glory seems endless. The city brims with life in its many taverns, inns and shops and the people seem a friendly bunch, always willing to chat about life, the universe and adventure. However, there is a darker side to Mitteldorf, and it lies beneath the City in the sewers and tunnels, where creatures most foul guard secrets that need to be learnt, along with treasure aplenty. But that is much later, as your reason for visiting this place is to uncover what happened to your cousin Sven. There you were, happily working at your farm, rearing pigs when the letters from Sven suddenly stopped coming. The family worried sick over his fate send you to discover just what has happened. You check out some equipment from your local village before setting out, some decent armour, a good sword and shield and you are ready for anything that comes your way.

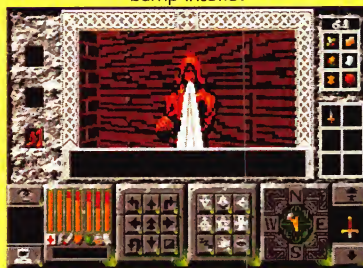
Sven's last letter gives you a starting point, as he says he has left a message for you in the Snakes Pub should you ever visit the city for a taste of adventure. LOV is truly a state of the art role player that grabs you right from the start and does not let go. From the character generation where you create your hero, you can pick which race, gender, and features you want, and save it to disk. But it is when you arrive in the City that you realise that this game is something new indeed. The 3D engine used in the game is a technical marvel of smooth scrolling graphics. You travel down narrow streets looking through the windows of all the houses as you pass by, and watch as day turns to night, the lights coming on around you. Yes, folks this is almost too good to be true.



On the trail of cousin Sven.



Nighttime, you never know who you'll bump into.lov



Take that you swine.



Deep in the sewers.



Dawn breaks will your nerve?

The city goes about its business whatever you decide to do, and you are left free to wander aimlessly about exploring or get into the swing of things right away and enrol at one of the many guilds for learning swordplay, or spellmaking or any other craft for that matter. At the inns are notice boards where you might find some work as an adventurer or mercenary or see a bargain for sale. People can be stopped in the street and chatted to, usually to ask directions as the city is pretty large. But thoughtfully a map is provided in the box, along with one on screen if you call it up. At regular intervals however you will also see some people with sharp implements who have taken a dislike to you, (maybe you insulted them) these should be either avoided or dispatched quickly. This brings us on rather neatly to the combat routine, which for once can be automatically done for you, or you can try out the many possible moves yourself. Either way, there is plenty of slashing and slaying to be done, coupled with copious amounts of the red stuff when you score a good hit.

There is so much built in to this game it's difficult to know what to do first. I enjoyed just roaming around the city, visiting pubs and shops, looking through the windows in the buildings, and even visiting the zoo!!!

Nearly every building is open for you to wander around, both upstairs and downstairs, and there is much to find. Magical items and needy equipment may be lying on a table somewhere, or even on the street if you are lucky. By just moving over the item, it will highlight in your inventory box and you can elect to pick it up or not.

The various inns and pubs offer much needed food and drink (you cannot hope to survive without regular top ups of each) and a chance to gamble a few groats, although this is frowned upon by



Let's have a look through the window. the Militia and if you are caught doing it you could visit at his majesty's pleasure.

The real treasure hunt and monster bash is found below ground however, and down there are some very nasty pieces of work. But if you want some excitement, stock up with food and drink, get plenty of rest, put on your best armour and weapons and go for it!

Finding out about Sven though, has to be a priority, and once you are on his trail the story unfolds in front of your eyes.

The interface is a dream, all mouse controlled with icon buttons, but let down dreadfully at the start with some very fussy and weird operating procedures which were the only disappointment in an otherwise momentarily enjoyable romp. Unmissable.



Death is pretty busy these days, isn't he?

VERDICT

Graphics:	98%
Sound:	86%
Game Play:	99%
Decision:	98%

SARCTICA

Centuries later, the survivors live out a miserable existence on huge trains, the only form of transport, travelling from town to town to trade. The sinister and powerful Viking Union controls the network, and patrols it with huge fortified trains packed with troops and cannon. It is pleased with this snow like existence and keeps the secret of how to return the Sun locked away. You play an idealist captain of one of the trains who is set on freeing the land from the grip of the Union, and seeking out more about the mysterious Sun that you have read about in your Encyclopaedia. (And we're not talking about the one with

page three!)

The game is a mixture of adventure and strategy, and to restore the sun you have to manage and build up your train into a potent fighting machine, by trading, mining and fighting the Union's trains. It is a complex scenario, and due to the rather poorly written manual takes an age to work out just what to do. Some decent graphics in parts, albeit mixed with a lot of snow, are let down by slow jerky animation in the fighting sections, so this will appeal to the more cerebral player rather than the action lover. I spy with my little eye, something beginning with S...

The whole rail network.



68%

advanced texture wrapping

Good God, how many ways of doing it (ooh er!) can there be? Loads actually. There are loads of ways of wrapping pictures onto 3D objects and there are also loads of ways of combining different techniques. It's all really rather complicated. If you read the last 3D tips, you'll have the basics sorted out and had a bit of practice. OK, so you no have the hang of basic texture wrapping. At least you can put them where you want them and re-size etc. Let's move on a bit. Let's get groovy baby. Let's do really wild things. (Let's get on with it! ED).

Animated wraps, gas/cloud wraps, visible light beams, multi-layer wraps, stained glass, multi-coloured mirrors, clip/scope masks, bump maps, global/cubic/environment mapping, moving water, fading maps, genlock maps... Ooh, exci-i-ting! I think the most important order of learning is as follows;

1. Learn to be able to quote fancy/neat words and phrases.
2. Learn what they mean.
3. Learn how to use them.

planet earth

EQUIPMENT: Paint program, Imagine 2, Lots of RAM, 68020+, (Digitiser and camera).

OK, yes, this is a bit stereotypical, but it's a good example of combining wrapping effects to produce the desired result. You'll often find that once you start to experiment with more complex ideas, you will need to combine more than one wrap/type of wrap.

In this case you need to create one map for the planet's surface and one for the clouds. The easiest way is to digitise a map of the world and find and digitise or draw a picture of a load of clouds. Make sure there are a lot of quite complicated clouds but with lots of space between them, or you won't see the planet. The other ESSENTIAL point is to make sure that your cloud picture is a grey scale version (shades of grey), because we are going to do something special with it.

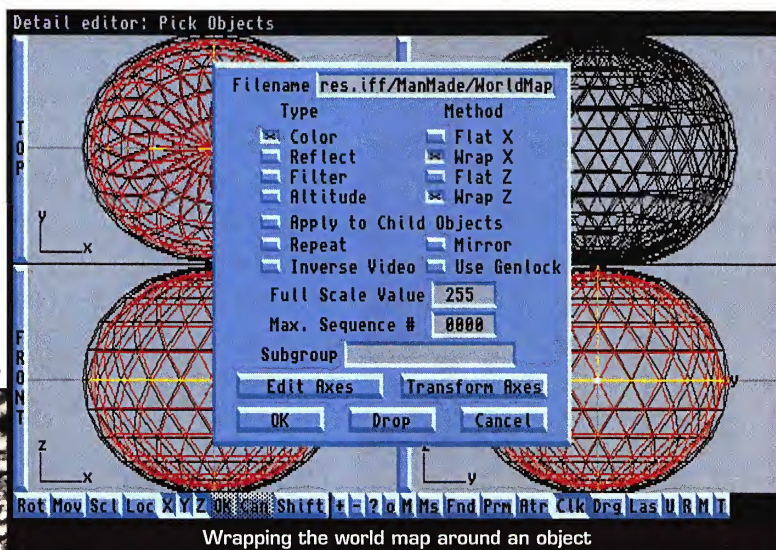


Rendered clouds

Build a sphere using one of the primitives. Copy and paste it down again. Now scale one of them to be slightly bigger. Select the small one and click on 'Brush 1' in Attributes. Choose your globe brush and click on Wrap X and Wrap Z. The small sphere now has a perfect spherical map of your globe picture on it.

Secondly, we have to create the cloud sphere. Select the larger sphere. In Attributes, select Brush 1 again and

Barry McCarthy shows you how to play God and create your own Planet Earth.



Wrapping the world map around an object

choose your cloud map. Now click on Wrap X, Wrap Z. But this time we need to make a few more adjustments. Click on Filter (makes it a transparency map, where white is totally transparent, through to black, solid) and Inverse Video (makes the map negative, so that the clouds are

Render your planet Earth. If you've followed the above example without deviating, you should have a good image of the Earth.

The better your original maps, the better the final image.

planet earth (ultra realistic)

EQUIPMENT: Same as above plus; 'Essence' textures for Imagine. Other useful things would be; Hard Drive, Maths Co-Processor, 24 Bit display or AGA Display.

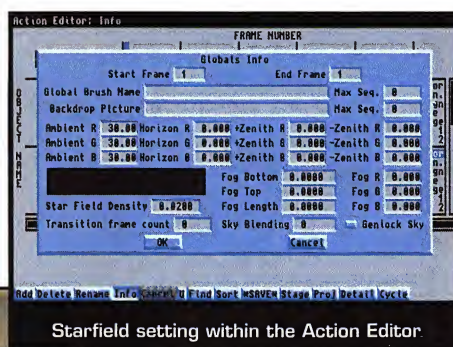
'Essence' is available through MICROPACE UK Ltd. Tel. 0753 551888.

So what's wrong with the first version? Well, it's fine for most instances, but if we want absolute realism, there are a couple of things that we can add. One is to incorporate a misty blueish atmosphere around the globe and the other is to obtain more realistic clouds that can also be animated!

Go back to the Detail Editor and select the cloud sphere. Copy, paste and select the new copy. In attributes, select Brush 1 and click 'Drop.' Now alter the colour to a nice faint blue/white, with whiter Specular colour. Change the Fog Length to the object length (Diameter).

fog objects

Any value other than 0 in Fog Length, will turn your object into a fog object.



Starfield setting within the Action Editor

solid, not the gaps in between).

One last note before we render. In the Brush Wrap requester there is a button called 'Full Scale Value'. This sets the RANGE of transparency; due to another slight 'bug', any non-24 bit image will only use 16 values for each colour (0-15), which when extended to 24 bit or a range of 0-255 means that the highest transparency you can obtain is $15 \times 16 = 240$. This is not fully transparent. Hence Full Scale Value. Just make this 240 instead of 255 and your maximum range is now 240. Perfect. Don't forget that this is not needed for 24 bit images. By the way, you can also brighten images with this and do try experimenting, because it affects Colour maps as well as Filter maps.



The world map picture used for wrapping



Imagine and I'm afraid there's nothing that you can do, until Imagine 3 arrives (Late summer? No bugs?).

other 3ds

I know that there are a lot more 3D programs around, but you just can't cover them all. I tend to stick to the most popular, so that the widest audience is addressed.

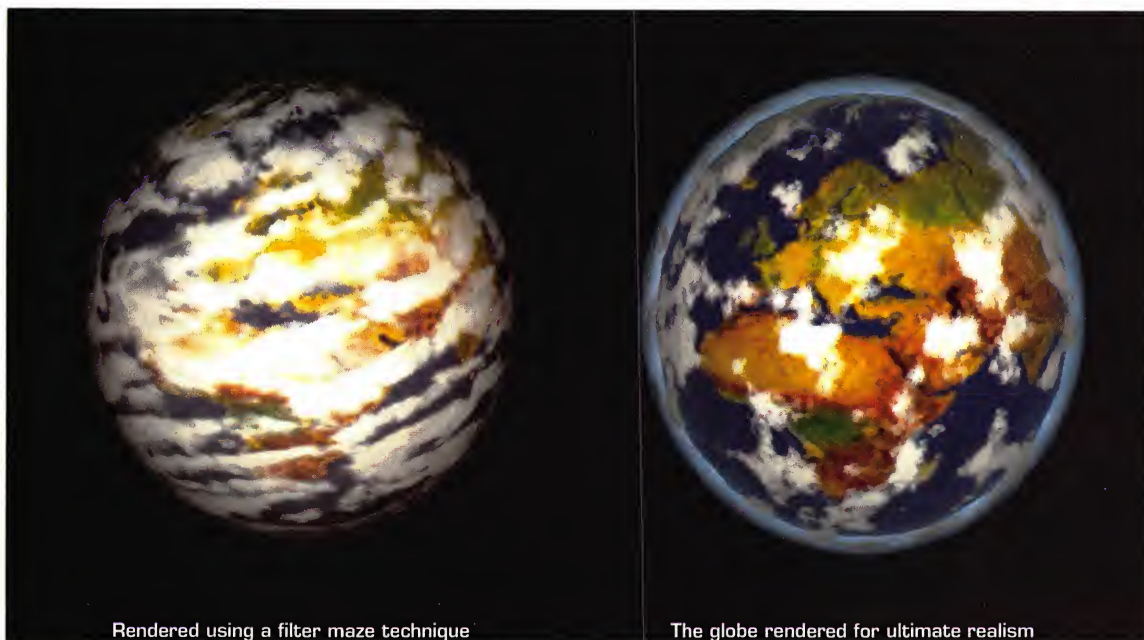
I spend a lot of time experimenting with and reviewing new products and this leads me to the conclusion that the best so far are the most popular ones. Real 3D and Imagine are the main contenders in the popularity poles, followed by all the rest. This is due to good support material (not by the programmers in Imagine's case), direct support by other manufacturers and a complete and solid product that actually works well.

real 3d 2

If you saw the preview in **AUI**, then your mouth would have watered at the blurb of possibilities. Well, the product is now being thoroughly tested by me and so far it's looking pretty good. I don't want to say too much, but for God's sake don't buy it if you're a beginner. This is going to be for the experienced. A review in 2 parts will be appearing soon.

understanding imagine 2

I've had several enquiries about the marvellous book, Understanding Imagine 2.0 and rightly so. Don't use the manual, use this book instead. It can be bought for about £20: Micro-PACE UK Ltd. 0753 551888, The Soft Alternative 0533 440041, DMS 0702 206165. **a**



animated clouds

If you want absolute realism, you can now animate the Blobf texture by producing two copies of the Earth, altering the TIME setting of the 2nd Blobf texture to about 1 unit more, for every 25 frames. Now morph the Earth(s) in the Action editor and you will have animated clouds! Yes, I know I've glossed over this a bit, but this is an area we'll come back to again later. Just read 'Essence', page 22' and 'Understanding Imagine 2.0', pages 103 and 149.

This is just scratching the surface of possibilities, so experiment and we'll return with some new ideas soon...

rendering problems

"Eh?!" This is what I find myself saying quite often, when experimenting in Imagine. You think you know what you're doing. You render it. "Eh?!" See what I mean?

The problem is Imagine itself. Imagine does have a few limitations in its rendering engine that you should be aware of. Most of these are due to failings in the area of transparency. There are also a few common things which should be avoided.

1. Bits of your rendered image are missing or broken up into triangles. Don't put axis or more than one point in exactly the same position. Move objects and axis away from each other by a tiny amount. This

may not be visible by eye but it makes a lot of difference in rendering.

2. Unlike Real 3D, Imagine will NOT allow you to build real life effects such as mirrors reflecting light onto objects, coloured gels and lenses etc. The reason is that light rays in Imagine are NOT effected by reflection or refraction. It's all an illusion.
3. Transparent objects will NOT show fog through them. They will also NOT show reflections of the sky on objects. Nor will they show backdrop images or global stars. You may also find that Brush Maps sometimes don't show up through transparencies.

These are all serious problems with



This picture shows just what can be done if you know how!

These are great for all sorts of things. smoke, clouds, gas, visible light beams (Think about it!) and atmospheres. Start with the value as about the same length as your object. Lower values mean more dense fog, and higher mean less (obviously).

Make your fog object a little bigger than the cloud object.

Select the cloud object. Drop the Brush Map and select Texture 1. Now from the 'Essence' textures, go into Noise and select 'Blobf'. I don't want to go into detail about the complicated settings (Read the manual), so I'll just give you mine. From top left to bottom right:

5.13	10
10	10
0.4	0
0.4	0
0.4	255
0	255
0	255
0.5	0

This will produce a nice sparse collection of filtered (transparent) blobs all over the sphere.

Now for something a bit weird. Read 'RENDERING PROBLEMS 3' at the bottom. Well, I seem to have come across a trick that cures one of them (Namely, fog not showing through transparency). Just copy the new cloud object. Make it a LITTLE smaller. Drop the texture. Set Filter to 255, 255, 255 and make sure that Colour is white and Specular is black.

Read 'RENDERING PROBLEMS 1'.

Now you can render the final image. Excellent! (Assuming everything went according to plan of course).

A12

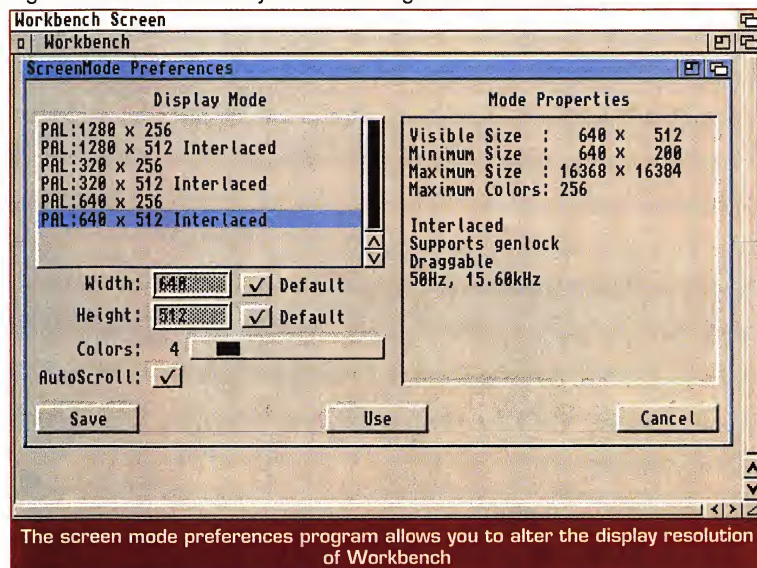
**Mike Nelson lets you
in on the intricacies of
the Amiga screen
modes.**

This month we'll take a look at the all-important display for your graphics. This is potentially quite a complicated topic, partly due to the flexibility of the Amiga's latest set of graphics chips, but also to the new jargon involved. We'll start with a guided tour of the Amiga's various graphics displays.

Probably the majority of users will be beginning with their telly as the computer monitor, and this is fine for playing games, but when it comes to running applications - even graphics-based ones like art packages, it becomes abundantly clear that the quality of the screen image leaves a lot to be desired. If you want to see what I'm getting at, take a look in your local computer store and compare the output from a Sega or Nintendo to an Amiga (or any other PC for that matter) working with a monitor. The difference is quite remarkable.

What then are the options, and how do you go about exploiting them? The next and simplest step up in the monitor stakes is to go for one of the many "video scan" type monitors such as Commodore's own 1084S or the various Philips equivalents (most of them are the same monitor with a different badge on the front, anyway). These plug straight into the RGB socket (it's marked Video) on the back of the A1200 and the phono plugs are straightforward enough for sound - just treat your Amiga as if it were a piece of HiFi and hook it to your amplifier to really blow some minds!

A 1084S will give you a much clearer picture, with far less blurring of the individual pixels and bleeding of the colours into each other than a TV. The monitor itself isn't greatly better than a television, it's just that the signal is carried differently from the Amiga and is



"cleaner" with less interference. A 1084S or equivalent is rated at only around 15 kHz, and so if you want to get more than 256 lines vertically on the screen, you will have to resort to interlace which can be a bind.

multisync

Next rung up the ladder is the VGA monitor, and this is nowadays the cheapest option, due mainly to the inexplicable popularity of IBM clone

machines. These devices have a fixed scan rate of around 31 kHz which means your A1200 can output its high resolution screens in a non-interlaced mode that such monitors understand. The "monitor types" panel details one problem, as the Amiga defaults to 15 kHz at boot time and this is tricky to get around initially.

The ultimate in deluxe displays has to be the "Multi-Sync" monitor whose electronics can scan a range of frequencies until they lock onto a signal. You still need to be careful,

however, because not all multisyncs can scan down to 15 kHz as this range is peculiar to video (and hence Amigas). Commodore are addressing the problem with a couple of new monitors (the A1940 and 1942) so you can rest assured that they will work, but this kind of thing comes at a cost. Although not yet released, they are likely to weigh in at around the £300 mark for the cheaper model.

getting going

From a practical point of view you need to know how to tell your Amiga which video display is in use, and also about the implications for software. We will deal with the latter issue first, as configuration tends to get a bit involved. If you are a games freak I wouldn't go for

Monitor types

The fundamental characteristic that determines your choice of monitor is the horizontal scan rate. This refers to the rate at which the frame is updated on screen. The faster the rate, the better the quality of the display as everything is related to the amount of time required to draw the screen with the electron beam. Slower scan rates (such as the 15 kHz modes) mean lower resolutions, or that pesky interlace problem, whereas a 31 kHz display can cope with 800 x 600 pixels which isn't interlaced, for example. How then do you tell your A1200 what to output?

There is actually something of a problem in configuring the system in that a fixed scan monitor will not display the boot screens as these always appear by default in 15 kHz mode. In theory you need two monitors to do the setup. Sharp-eyed people will also have realised the potential problems in using fixed-rate monitors as very few games support the AGA graphics modes, particularly the non-interlaced ones. As they usually don't use the operating system (by looking at the user's preferences) to select graphics modes, and simply assume they can run at 15 kHz scan rates, and away they go.

There is no easy way around the problem, except A4000 owners will soon be able to purchase a "Display Enhancer" from the big C which effectively takes the Amiga's output, whatever it might be, and scan converts it to 31 kHz, thereby ensuring it works on a VGA monitor. There are no plans to make an A1200 version of this, mainly because of the technical difficulties in gaining access to the internal video signals.

00

THE FIRST STEPS

anything other than a 1084 type of monitor. From it you will get a decent picture to see clearly where the next alien scumbag is coming from, you won't be spending a fortune and it's a plug in and go scenario.

Next you need to tell your Amiga to use the 31 kHz graphics modes for its output, and how you do this depends very much on your system. Hard drive users will have the easiest time, but those stuck with just the floppies and trying to run sophisticated application stuff from the Workbench disk may have a little more fun.

Firstly, you need to check which graphics modes are currently supported by your Amiga, and this is easy enough to do by running "ScreenMode" which you should find in the "Prefs" drawer of Workbench. You should get a scrolling list of graphics modes with

You will find this icon in the "Monitors" drawer either in the "Storage" drawer of Workbench, or if you're running off floppies, on the disk of the same name. A reboot is unfortunately required for this change to be recognised by the system, and you're away.

Firing up ScreenMode should now give you a list of the 31 kHz screens available to you. Note there are other files in the Storage/Monitors drawer which add information about the other graphics modes available under both the ECS and AGA chipsets, including Productivity, and also support for the amazingly high resolution but rather slow scanning A2024 monochrome monitor. Try playing with them, but be warned about messing too much, especially with the Save option as you can really foul things up.

Selecting Save from the ScreenMode program will throw the Amiga into the new graphics mode. But if you are using a 1084S type of

screen will be intercepted and the corresponding "Double" screen will appear, the program being completely

promotion

Mode promotion is a clever little addition to the operating system. It gives users of older application software a fighting chance of being able to run it in the new 31 kHz modes without the program specifically supporting them (because they didn't exist then). Selecting the option from the "IPrefs" file (it also controls the mouse speed and such like. God knows why they put it there), will switch it on. And any program that tries to (legally) open an interlaced

mode that is completely inappropriate for your monitor, fear not, as a rescue plan in the shape of ECS is at hand. Boot your Amiga while simultaneously holding down both mouse buttons and you will be left with a menu that allows you to use the old ECS type of chipset emulation. This does not support the fancier modes and so Workbench will materialise in a medium resolution screen allowing you to undo the damage fairly easily.

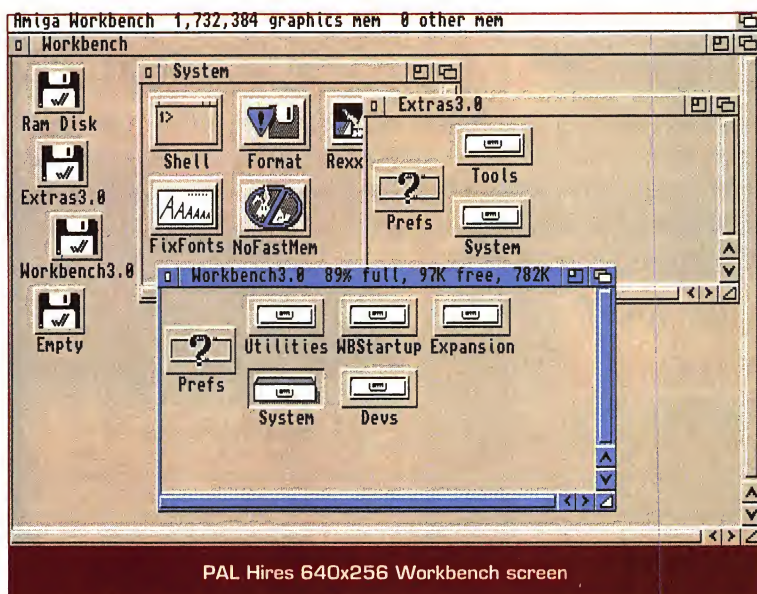
conclusion

There is so much more to the Amiga than just playing games and, in order to make the most of this fabulous machine, you will need a proper monitor. The 1084 will do for most things, but serious applications such as DTP and word processing really require a multi-sync. Commodore's newest monitors

Interlace

If a display device is too slow to cope with a high resolution (e.g. 640 x 512 pixel) screen, one work around is to use something called interlace. Televisions employ this technique which effectively doubles the vertical resolution by firstly sending out the odd lines, and once the beam returns to the top of the screen, the even lines are jammed in between. However, the phosphor dots that comprise the display are now beginning to fade and hence the flickering before they can be redrawn. Take a close look at the news or weather graphics and they really do shudder, and anyone dull enough to wear a fine check suit on TV will have a shimmering body that looks like being beamed down from the Enterprise.

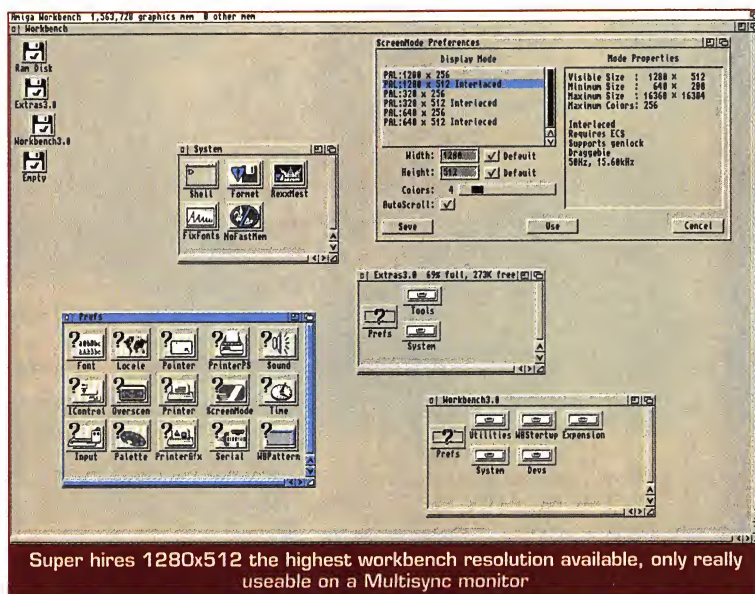
Solutions to interlace include keeping the brightness and contrast low, using a polarising filter on the screen (or sunglasses work as well) and obviously getting a decent monitor. Don't look on interlace as a real downer in terms of resolution as it is one of the Amiga's great assets, linking the world of computer graphics with television. Anyway, your A1200 now has the graphics horsepower to output non-interlaced screens at up to 800 x 600 pixels.



entries like "Hires interlaced", or "Lores non-interlaced".

If, as is most likely, you don't have the "DbiPal" entries in the list, you will need to close the program down and drag the "DoublePal" icon into the Devs/Monitors drawer of Workbench (note the use of the AmigaDOS nomenclature which means in English that the drawer "Monitors" is located inside "Devs").

monitor, it will not be able to keep up with the information coming out and your display will be as useful as the Titanic's iceberg detector. Can you see the problem with configuration which must be done in 15 kHz? Perhaps Commodore would see fit to produce a boot disk that contains 31 kHz screen modes already selected so you can at least see what you're doing!



oblivious to these goings on. As more AGA stuff is released, you should find more and more use for this type of information.

trouble?

If by chance you manage to switch your Amiga into a weird graphics

look like fitting the bill very nicely, but there is always one of the cheap PC VGA monitors if you can get hold of the adapter for the video port. Commodore sell them to developers for some ridiculous amount of cash (around £17 for a plug!) so be warned, it's not a cheap business. **a**

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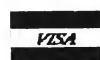
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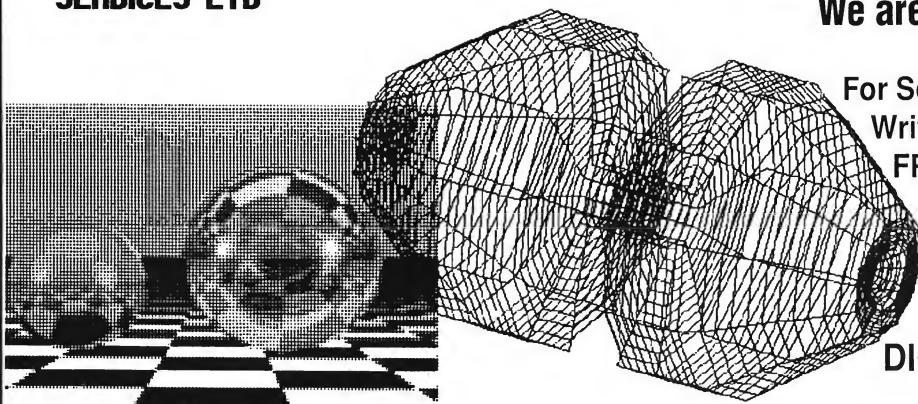
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write to reply

**This is where you get your chance to
speak – or write – your mind about
what’s bugging you. Bud Vennos
fields the bouquets and the brickbats.**

Dear *aii*,

Just thought I'd drop you a line to tell you you've gained another happy reader. I am one of the more simple Amiga users, so I have to thank you for the HAM picture you gave us on Superdisk 22. I have never seen a HAM picture before and so haven't really been impressed with the graphics capability of the Amiga, until now. I keep reading about how it can produce television quality pictures, but it seems that isn't the case with the new design A600 which won't allow things like the Harlequin board, whatever that may be.

So imagine my surprise when I loaded up the picture of that Woman! It may not be as good as Ham8, but that bothers me no more...and the Harlequin board can take a running jump. So unless Commodore unleash a powerful 90 zillion colour card, I will be just happy enough to get by without whining for an A2000!

Now, while still on graphics, are Commodore ever going to release an add-on numeric keyboard for the A600...? The wonders of perspective calls me in my dreams, but I can do nothing!

On the subject of Workbenches, I think you should hold a competition for the best looking one. I have included one, on one of the disks, which I threw together! The Simulated Genlock was taken from another magazine's disk (forgive me) and the pictures (so I'm told) were in the public domain. If by some faint chance you print a picture

of the Workbench then could you print the above!! I don't want to end up in court "for a crime he did not commit"!

Also on the other disk are a few pictures and a really annoying tune I put together for no reason whatsoever to show off the efforts of a first time user. The pictures were created using Vista and then put through DPaint III. Your HAMLAB came in really useful because my copy of Vista won't allow me to save in low-res (it crashes), so I have to save in HAM mode which obviously won't load into DPaint III...so I run it through HAMLAB first. Thank you! You have just saved an excellent program from being trashed!

If you print the answers to the Workbench/colour/font question I would be truly grateful.

Anyway, that's all I have to say. Keep up the good work and last forever!

William Quinn
Corby, Northants

Dear William,
I can confidently, but not pleasurably, state that Commodore will not be supplying a numeric keypad for the A600. Why? Because a) they have probably stopped producing the A600 and b) they have replaced it with the A1200 which already has those keys. The A600, though a good little machine is, as the Monty Python gang might say of the famous parrot, deceased, defunct, dead, it is the late A600, it has kicked the bucket, it is no more. However, anyone who bought it still has a perfectly good Amiga. So ignore what happens

when fashion passes by and keep on using it.

As for the Workbench you sent in, thanks, we'll certainly consider a competition along the lines you suggest. Your efforts, if you are a first time user, are really worthwhile. Well done! And we'll try to keep up the work and improve it still more.

Dear *aii*,

Well, what a confounded cheek! Bud Vennos in his "Write to Reply" column cruelly criticizes a schoolboy, Richard McConnochie of Aberdeen (May/June 1993), for one small spelling error and suggests he should use a spellchecker - an item probably well beyond the lad's means. A quick glance at your magazine's "Who Does What" column under "And What They Used" (page 4) shows that you have Arnor's Protext available to you which I know, because I use it myself, has a very powerful spellchecker, so what's YOUR excuse?

Not only do you, Mr Vennos, require to follow your own advice but I think you would also benefit from taking an intensive course in English Grammar to make up for the time that you quite obviously wasted in English classes at school.

You, sir, are a journalist, albeit a technical journalist.

The tools of your trade are words and the rules for grammar by which they are used. Therefore there is really no excuse for your quite appalling spelling and grammar - of which examples are aplenty:- 'Poeple'!(!?),

'Thoroughly'!(!?) Did you mean 'people' and 'thoroughly'?

As for your grammar! "...available personpower." Personpower? Does your vocabulary not extend to 'personnel'? "...that which operating system is dealing with."(!?) Write out one hundred times, "...with which operating system it is dealing." You do not simply split infinitives, Mr Vennos, you alienate them!

Then there was one small matter of the duplicated letter and reply. No doubt you will blame your printers for that, but the fact is if your magazine employed efficient sub-editors and proof readers, these errors would never get as far as the printers.

Mr Vennos, may I refer you to the Bible, "And why beholdest thou the mote that is in thy brother's eye, considerest not the beam that is in thine own eye?" In today's English, that would probably translate as; "Take the great splinters from your own eyes and you'll see better to remove the small speck from your brother's eye." Think about it.

John McKillop,
Glasgow, Scotland.

Dear John,
Wow! That's quite a harangue! Worthy of Mr John Knox himself! You're right that we should be sitting on the Cutty Stool for the errors that someone makes. Don't blame me for all of them though.

On the question of split infinitives, you are right, they should be avoided, if possible or unless it makes sense. And we try to do that. But we don't take it to extremes, and nor did that master of the English language Winston Churchill. When he found that a pedantic secretary had "corrected" ALL his split infinitives by placing the preposition before the verb, he supposedly wrote a note on the document that said "Up with this I will not put and out of here you'll have to go!"

On the matter of typos - typographical errors as they used to be called when there were typesetters - we produce some 65,000 words each issue. That's about as much text as a short novel. If we only get a word or two wrong each month - though we would all like to be perfect - that can't be considered too heinous a crime.

But that duplicated letter. Ouch! Quite right, carelessness on our side negates a lot of what

we say if we are talking about other people. Glass houses..glass houses..

It might annoy you to know that it is often claimed that the best English is not spoken in Glasgow, whose accent I must confess is not music to my ears, and your interpretation of the "beam" referred to in the Bible may well be incorrect. For it is thought not to be a wooden beam but one from the sun. But we all have to have little annoyances, like being wrong, in life, don't we? (But that excludes the Editor, of course, who, as Martin Witton would say, COULD NEVER BE WRONG!)

Perhaps you would have been better referring to the famous phrase, "Poeples - sorry People - who live in glass houses shouldn't undress close to the windows."

Anyway, you are right about the misuse of language. So the **aiui** rule is to avoid - or exterminate - the use of the word "basically" except where it is correctly employed (Patrick Howlett agrees, doesn't he?). And to forbid the term "Having said that" (Yes, Gideon Overhead, you agree with that, don't you?) which only means "but". And never to use "hopefully" when "we hope" is really what is meant and never, never to write "in terms of..." which has no proper meaning at all. I hope - not hopefully - you never use any of these useless expressions and words and you never find them or other similar corruptions of language in these sacred pages.

Dear **aiui**,

This is another one of those letters complaining of not receiving your coverdisks. Despite what you keep stating in your magazine to the contrary there are still magazines leaving England without the coverdisk attached.

I have been waiting some time now for a comment that certain disks had been left off the export mags but nothing has been forthcoming. Superdisks 19 and 20 were missing when I picked up my order from the local newsagent. He told me that all his January and February **aiui**s came in that way. I checked his stands and indeed no copy had the slightest trace of ever having come in contact with any sticky tape.

Now I'm sure you're going to say the same as usual that all copies of the magazine leave with the coverdisk on but it just wasn't so on these two

occasions - it is impossible to leave no trace of the type of sticky tape that **aiui** uses.

Finally I would like to congratulate you on a very good magazine now that all the colour problems appear to be over and I can read all the articles. Also the Superdisk always has some of the finest utilities around and I always look forward to it in anticipation.

Yours Sincerely,
TW Hainsworth.
Australia

Dear TW Ainsworth,
Well, the mysterious case of the missing sticky tape... Should be call in Sherlock Holmes? (The offices of **aiui** are now only a cobble stone's throw from 221B Baker Street.) All we can do - which we have already done - is send you the January and February disks. And we hope they have reached you by now.

Whatever happened to those disks, we have haven't had any complaints recently so the case may be closed even before we get Sherlock on to it.

As we said before, if any unfortunate reader in the Antipodes didn't get the disk from those months then we'll be happy to send it.

And thanks for the compliments about the magazine. Yes, it's nice to read a publication that you've paid for. But think of the fun you had trying to decipher the words of dark blue on black. (And thank you too for the cheque, Royal College of Opticians!).

We get a lot of people telling us they like the disk, so we must be doing something right. Three cheers for those who have created it in recent months, Gary Fenton, Aitor Ibarra and Patrick Howlett - and of course, for the sterling work from Simon Gardiner.

Howdy there **aiui**

Well...I avoid bugging you with inquisitive detail-mumbojumbo.

"I SHALL PROUDLY RIDE THE MULE ALONE"

The important point of correspondence is :

I've been investigating through the Stores and Shelves, for a Magazine fitting my expectations...

One usual mental-grey German day, there it stuck blending out of mediocre piles...I flipped a few pages and it clearly dawned on me; the "Amiga-Gadget", was devised by English-minded-Folks, -so

only Anglo-lingo-Operators, can issue the required printwork regarding all about Amiga.

Okay...here in Germany, your Magazine is somewhat expensive. - but for desired guidance, I'll always got some D-Bucks to spare.

How do I utilize my Amiga?

Well...I was only an eighth grader and not more ever since... so I render myself a "Jack London teaching" - and envelop every knowledge available, - drawing my secluded own conclusions about versatile circumstances.

My prime contributive education-tool, will be the Amiga-path. It is an Amiga/600 now...so what!? - being an almost poverty-case, I have to make engaging-due by humble means... but I'll grow along as my savings improve.

You guys meanwhile, maintain your fine editing-job and keep a reliable supply of your Magazines coming in here.

PS. I'm aware, it would seem obvious, to have your Magazine subscribed, for secure reception...but these organized con-times, one is welladvised to remain financially non-traceable.

...not your fault guys, it's the concealed-evil established.

Sincerely; Fred
Frackowiak.

Semi Confidential Note

I have a pretty long (by the way) on things, circling around me. You know, what my comprehension about computing would be?

Well...rather simple!

One pushes the power-switch, (all human-knowledge already inserted) and nourishes the keys with P.A.L.-(public average linguistics). Then, vitally and fluently,-the words are loaded in whatever way one's Mind delegates the thought-pattern and not so much machine, supports and enhances the brainy-process quite unpredicatably and advantageously.

Nowthat - would be an "analytic-companion", one could appreciate.

Maybe some conceivable day....the following mutual scenario:

1.) Question...what explains extra-terrestrial-intelligence?

Reply...it is the UNIVERSAL

LAW OF INTERRELATED RE_OCCURRENCE, - the very micro equals the ultimate macro, each has spread existence of sorts within its confines.

2.) Question...what implies nuclear-physics to come?

Reply...it will be the molecular-engineering (cloning), of anorganic material, - to generate radiation-neutralizing & artificial gravity-producing and reversing "space flight matter" (entry-level UFO-technology!).

3.) Question...what is the true meaning of human-life ?

Reply...it is also designed for the humankind, to graduate towards ability - perceived to be the sole property of "God"

- enabled to leave this Universe,- the largest single Cell-structure known...to travel from Cell to Cell, until at a certain measure of infinity, - the "core of creation" is met.

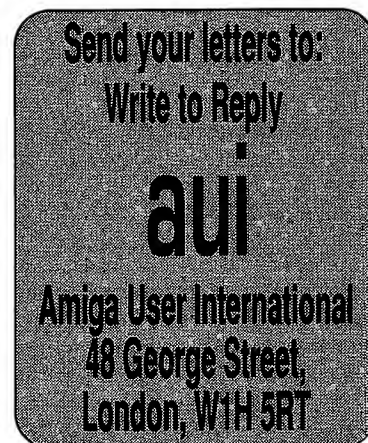
Now I guesswork, what a mega-amount of fuzzy-logic, would be necessary to compute such entities... ?

double-F
physical-age:33
neuronal-age:1(RAM)-
reincarnated ancient Monk
mysteriously;

Fred Frackowiak
Berlin

Dera Fred,

It's said/sad that I'm not often verlost for words - not even "words that are loaded in" - but speechleft we are after allover that! Perhaps we needsome loads of what is seeming your stronglypoint fuzzily logical to "graduate towards ability" to understandable you... and meeting the "core of creation". Or is that a Monkish reverence to our beloved Commadore's Enginyearing Depart meant?



Programming

The use of AmigaDOS devices, as opposed to the equivalent Exec forms, is often an area of confusion among new Amiga programmers. For example, as well as the Exec style console device which can be opened to enable a program to perform console based I/O there is an AmigaDOS 'device', called CON:, which provides similar console based I/O facilities. This month we are sketching out the differences between these two types of entities. The story begins, like all good Amiga stories, at the Exec end of the trail.

On the Amiga many programs can be running at the same time and it's not hard to imagine the problems which would occur if one program suddenly decided it wanted to take over control of say the disk hardware while another program was using it. These types of 'contention' issues, where two or more programs are trying to access or use the same system resources, can't be solved at the hardware level and so Exec was developed with a mechanism which makes it possible for many different programs to share a common set of hardware resources. The Amiga places a software layer, called a 'device', which acts as a barrier between the real hardware and the applications programs.

This arrangement doesn't alter the fact that sometimes, because a piece of hardware is already in use, a program won't always be able to open the corresponding device but it does mean that programs can ask and be informed about what is and what is not available for use at any given time (and can therefore take the appropriate actions).

If, for instance, during the time the serial device was being exclusively used by one program another program tried to gain access to the serial device to read and write totally unrelated data, the 'open serial device' request would fail. This is the system's way of telling the second program that the underlying hardware is not available for use.

independent

In addition to solving the hardware contention issues the Exec device arrangements aim to provide input/output (I/O) facilities which are as 'device independent' as is realistically possible (given the differing physical and electronic characteristics of the various bits of hardware involved). In the main they succeed and the devices all provide an identical core of basic operations which means that, once you've learnt about programming one particular device in detail, it is relatively easy to learn how to communicate with the other Exec devices.

The Exec device concept is general enough to allow other areas of the operating system to be viewed in 'device-like' fashion - hence the existence of higher-level units like the console device and input device.

Exec devices are either ROM based or are loaded (from the DEVS: directory) from disk as

More programming hints and tips from Paul Overaa.

required. The details of Exec device programming are quite complex but it is dealt with in detail in the Addison Wesley 'Devices' RKM manual and regular readers of AUI will know that we have covered quite a lot of Exec device related material in the past. Our current concern however is a more general one, namely the relationship between the Exec devices and the AmigaDOS variety...

AmigaDOS

AmigaDOS uses units called handlers and filesystems to handle its I/O operations and they reside either in ROM or on disk (in the L: directory). These units are also collectively known as 'devices' but the distinction here is that these AmigaDOS devices are invariably higher-level units that have been built on top of the underlying Exec facilities. A whole range of handlers are available including the following...

AUX: provides unbuffered serial I/O and is basically a console handler that uses the serial port instead of the Amiga screens or keyboard.

CON: provides buffered screen and keyboard I/O.

RAW: provides unbuffered screen and keyboard I/O.

SER: PAR: and PRT: provide stream oriented serial, parallel and printer I/O.

NIL: a pseudo-handler maintained by AmigaDOS which enables unwanted output to be thrown away.

PIPE: provides buffered I/O communications between programs.

SPEAK: used to provide speech output.

These high-level AmigaDOS devices are always much easier to work than the corresponding Exec units because it is not necessary to get involved with Exec style message-based I/O request handling. Instead Open(), Close(), Read() and Write() operations are used just as if you were handling conventional (disk) files. For example, here is a short C example which opens a RAW: console window. These windows are often convenient firstly because keystrokes are not automatically

TIPS

echoed back to the screen, and secondly because input collection is instantaneous (unlike CON: windows which buffer keypress info until the return key is pressed). The program displays some text asking the user to press a key and, when a keypress is detected, the window is closed...

```
#include <stdio.h>

#include <proto/dos.h>

#define MESSAGE "Press any key to
close the window"

main()
{
    char c; BPTR file;

    file=Open("RAW: 20/20/500/50/
TestWindow",MODE_NEWFILE);

    Write(file, MESSAGE,
sizeof(MESSAGE)); /* write prompt
message */

    Read(file, &c, 1); /* read single character
*/

    Close(file);
}
```

The advantage which AmigaDOS devices offer then is simplicity. The disadvantage is that the high-level file I/O arrangements can be restrictive (since they prevent you from easily manipulating the underlying device characteristics at the Exec level). In short, when there's a choice of devices it is best to use AmigaDOS forms because they make your coding and maintenance problems simpler. Opt for the Exec level alternative only if you need maximum performance, additional flexibility, or have some special device needs that can't be catered for at the AmigaDOS level.

Incidentally, AmigaDOS V2.0 and subsequent versions provide substantial enhancements to devices like CON: and there are, for example, new keywords that allow window creation to be suppressed until an I/O operation occurs, custom and public screen windows to be used, close gadgets to be added etc. The current edition of the AmigaDOS manual (published by Batam Books) is the place to look for in-depth details. **a**

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This month Paul Overaa tackles the area that has made a big impact on the Amiga world - ARexx communications.

There are many unusual computer languages around but few come close to ARexx for dealing with program statements that they don't understand. When ARexx finds such statements it assumes that they are commands intended for another program and transmits them using the Amiga's Exec message facilities. The destination will have been determined by specifying a 'host address', the name of a public message port managed by the host application and this means that all programs that have ARexx interfaces must set up their own (appropriately named) message ports, because it is through these entities that ARexx and program 'control' messages get passed. Programs communicate with others then by using ARexx as a message 'control centre' and the potential applications of such arrangements are enormous.

There seem to be a lot of misconceptions about the relationship between ARexx and its communications facilities so it's worth clearing up some basic points right from the start. ARexx like Basic or any other language, has certain syntax rules. So, if, for instance I wrote... say Word[x\$,i]... instead of Word(x\$,i), i.e. used square brackets instead of parentheses around a function call, then the statement would be thrown out by the ARexx interpreter.

That's fair enough, every language has its own set of syntax rules. The important point with ARexx, however, is that those rules only to certain types of statements. A lot of ARexx programs will contain ordinary ARexx statements plus commands intended to be sent to other programs. While ARexx's syntax rules obviously apply to all of the ARexx statements that occur within a program - they will NOT apply to the commands intended for other programs. As soon as ARexx recognises a statement as being an 'external command' it effectively ignores its syntactical structure - and concerns itself only with finding out where the commands should be sent. This is achieved by setting a 'host' address.

enhancements

Some ARexx-compatible products may have only a half a dozen commands enabling a few basic operations to be carried out. Others

may have hundreds of commands enabling everything that the package can do to be controlled remotely. Some products may just be 'controllable' in the sense that external scripts will be able to send instructions whilst more sophisticated interfaces will provide facilities which allow them to not only to run an external ARexx scripts by themselves but send data to, and receive data from, those 'macro' scripts.

It is these latter type of communication links which allow ARexx scripts to be used to add new enhancements to a software package. All ARexx-oriented software products will have their own set of facilities, and commands which they understand, and these depend on what the developer of the product saw fit to include. Being told that a piece of software has an 'ARexx interface' therefore means very little unless you also get told what facilities the developer decided to provide.

How do you know which types of ARexx goodies are offered with particular pieces of software? You have to consult the manuals of the products concerned. Unfortunately there is a minor snag... in order to understand the relevance of the various options provided you need to be ARexx literate, but really to become ARexx literate you need some practical experience with 'real life' ARexx-oriented packages. Catch twenty two!

But things are not quite as bad as they seem and all that's required is just a general awareness of the ARexx scene. You need to know a little about the language itself and about the types of facilities commonly provided with ARexx-compatible software packages. It is also useful to see examples of how these commands are used in practice and so that's what we will tackle next.

macros

As mentioned already it is possible for a suitably programmed ARexx-oriented applications program to initiate the running of ARexx scripts. Scripts which are designed to function in conjunction with applications programs in this way are known as 'macros' or 'macro scripts'. In these particular cases ARexx ensures that the results are sent back to the program that asked the resident process to run the macro in the first place.

The SAS C compiler, which a great many programmers use, has a text editor called se which supports ARexx and although it's not feasible to list the complete command set a few examples should illustrate the benefits that ARexx can bring. Part of the command set can mimic various menu operations: 'BM' for instance selects Block Menu operations transmitting 'BM "E"' is like selecting 'End' in the Block Menu, and transmitting 'BM "B"' like selecting 'Beginning'.

The commands mentioned above just cause the editor to do a particular job but other commands, such as the GL (get line number) and GT (get text line) produce results that come back to the macro. In this case it is the responsibility of the macro code to collect those results and se uses the standard convention of providing results in such a way that ARexx can place them in its RESULT variable. The ARexx OPTIONS RESULTS instruction can then be used to force ARexx to look for these results. To ask se to send the current line of text to a macro we use this type of code...

```
options results
'GT'
text$=result
```

Because other commands may not involve result collection, code can often become littered with 'options results' and 'options' toggles. It's useful therefore to hide results-based code inside functions (altering the results settings within a function does not affect the calling routine's settings). Isolated routines for collecting a current line of text and a current line number using the editor's GT and GL commands are easily written...

```
GetLine:
options results
'GT'
return result
GetLineNumber:
options results
'GL'
return result
```

Used in conjunction with the Block Menu commands even these simple editor commands can achieve a lot. In the following example the GetLineNumber() routine is used to identify the start and end of the block, and

ARexx **PART 2**

GetLine() is used to see if the line is null or not. A loop which identifies all non-null lines is used to add a line number followed by a colon to each non-null line with the extra field justified to 4 characters (NL is the editor's 'next line' command). The net effect is that a marked block of text can be line-numbered in such a way that only those lines that have text present receive line numbers...

```
/* macro1.se - will consecutively number
'non-null lines in marked block of text.. */
'BM "E"; block_end=GetLineNumber()
'BM "B"; block_start=GetLineNumber()
line_number=1
do i=0 to block_end-block_start
if GetLine()~="" then
do
Left(line_number':',4)
line_number=line_number+1
end
'NL'
end
exit rc
/* _____ */

GetLine:
options results
'GT'
return result
/* _____ */

GetLineNumber:
options results
'GL'
return result
/* _____ */
```

The editor allows these macros to be tied to specific keystrokes (eg a function key) and so, having marked out a block of text, the above macro could be used to sequentially number all of the lines in the block that contained text at the touch of a button. You'll notice in the macro1 example that an if-then conditional test has been used in conjunction with a ~="" (not equal to) expression.

If the test is satisfied then all of the statements within the innermost do-end markers are executed. The Left() function call generates a four character string consisting of a line number followed by a colon and this

gets transmitted to the editor and inserted at the start of the current line.

I've also used a 'do' loop arrangement and this is an ARexx equivalent of the common 'for' loop (such as is found in Basic's FOR I=1 TO N type statements) whereby an index variable, having been assigned an initial value, is incremented by one each time the loop is executed. Loop execution terminates when the index variable reaches the specified final value...

```
do <initial index expression> to <final index
expression>
<statement>
end
```

Once a basic block marked text line collection routine is available it is possible to produce a whole set of related macros very easily. Being a programmer's editor rather than a word-processor, se does not for instance have facilities for turning single-spaced text into double-spaced text. Such a macro, which has to insert blank lines between existing text lines is however very easy to write by using a line collection loop coupled with se's next line (NL) and insert line (IL) commands...

```
/* _____ */
/* macro2.se - will double space the lines in
a marked block of text.. */
'BM "E"; block_end=GetLineNumber()
'BM "B"; block_start=GetLineNumber()
do i= 1 to block_end-block_start
'NL IL NL'
end
exit rc
/* _____ */

GetLine:
options results
'GT'
return result
/* _____ */

GetLineNumber:
options results
'GL'
return result
/* _____ */
```

The se editor's ARexx controls cover all normal editing, search and replacement, compile-cycle control and a host of other areas as well. The examples we've looked at have been kept deliberately simple but, of course, it is possible to create far more powerful macros which convert units, reformat tables, produce indexes etc. Nowadays if you have a word-processor or text editor with an ARexx interface you are likely to be able to do almost anything, regardless of the facilities inherently provided.

Nowadays if you have a

word-processor or text

editor with an ARexx

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provided.

There are a growing number of programs offering ARexx support. spreadsheet and database programs like Precision Software's SuperPlan and SuperBase Professional. Gold Disk's Home Office Advantage. On the multimedia front Inovatronic's there are Inovatronic's CanDo, Gold Disk's HyperBook, and ShowMaker programs. Commodore's AmigaVision seemed likely to become major force and for graphics ASDG's Art Department Professional,

Newtek's Digi-Paint 3 and Progressive Peripheral's IntroCAD Plus have all added their own ARexx magic. The Prowrite word-processor supports ARexx as does Softwood's Final Copy II and many other packages are deciding that ARexx is the way to go.

There are also vast numbers of public domain style offerings and as an example of what is available in this area we've put Aric Caley's SlideMaster program on this month's cover disk. SlideMaster is an IFF picture display program which offers a range of wipes and fade effects that are ARexx controllable - you'll find the program, some example pics, instructions, and an example script! **a**

Michael Sewell examines the current and changing situation in the world of infectious disks.

In recent issues, **AUI** has carried various articles keeping you up-to-date on the growth of the Virus industry and the ongoing battle to combat this.

The newer members of the readership will only have become aware of its existence once they encountered a problem.

For the few that have been lucky enough not to have needed to contact us, The British Virus Research Centre (BVRC) is based at Goldstar Computers (EC) Ltd, "Omega House", 83 Railway Road, Leigh, Lancs, WN7 4AD.

We are here to collect information on viruses (any new virus is welcome and requested). After extensive testing and disassembly, We pass that information on to the Main Virus Research Centre in Denmark and from there, the information is sent on to the programmers of the Anti-Virus programs we know so well, such as BootX, Virus Checker, VirusZ etc.

We also supply help and advice with the removal of viruses via a telephone help line (0942) 682205.

For over two years we have been supplying this service free of charge to any and all who may require it.

Over the last twelve months, we have seen quite a change in the rather dim world of the virus writers and combatants.

A dramatic fall in the emergence of NEW viruses will perhaps allow you to breath a little easier. There appears to have been only "updates" to the older strains such as the Liberator (now version 5).

The number of reported incidents of infection have also dropped rather dramatically, It tends to be the infection of the first disks brought home by a user's child (pirated copies from school, perhaps).

However, the number of people expecting to be assisted in the removal of a virus from pirated software has not diminished in any respect.

piracy

We will not provide advice or assistance in any situation where pirated software is involved, We have not reported the use of pirated software to the likes of FAST etc. However, that could change.

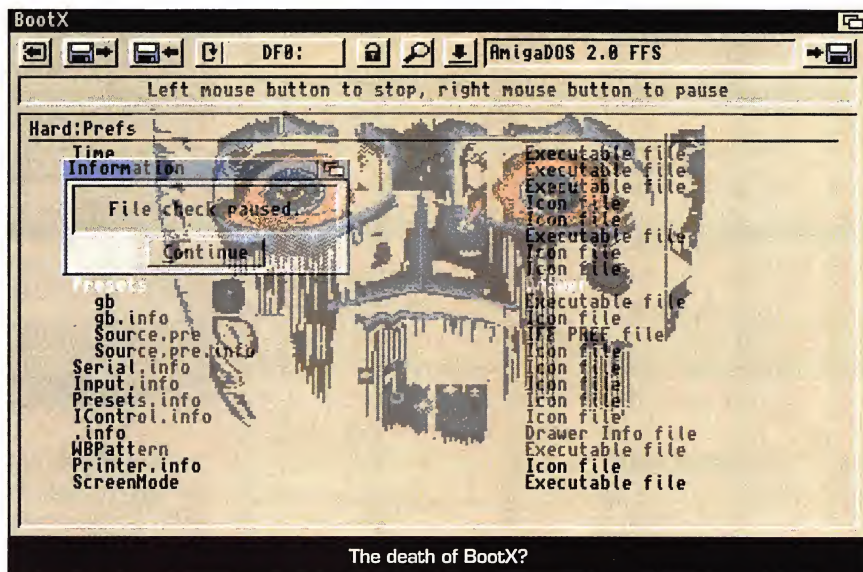
On the whole, the reduction in the number of reported infections has been reduced due to a heightened awareness by the public and the fact that the Public Domain libraries now take their role as virus detectors extremely seriously.

After all, everyone has access to the latest virus killers via their favourite PD house, and should use them.

Makes you feel quite safe doesn't it?

Well, now that you have had the sugar cube, try the bitter pill.

Peter Stuer, Author of BootX, LVD and many other anti-virus programmes is withdrawing from the activity. BootX will no longer be updated; the final version is 5.23a.



This has come about because he asserts that he has received little, or no support from the public. He says that he can only update BootX when he receives new viruses, New viruses are found by the public and sent to ourselves or to Peter direct.

No, new viruses, No anti virus programs.....

It takes the edge off that warm glow we had a minute ago. But in a way, it's a kind of victory, like the virtual elimination of diphtheria in the UK as a result of the development of anti-biotics.. Ah well, what's one program? There are others, right?

Sure, there are others. And they all get the latest viruses from exactly the same source as Peter. Or rather don't And guess what..... These authors are starting to feel the same way. No new viruses means no updates to the programs. Old programs may mean no defence.

But it's a good thing, isn't it? No new viruses. No new viruses sent to us does NOT mean there are NO new viruses. Only that none is being sent to us.

Maybe there are just no new viruses, so why worry?

There ARE new viruses, The author of a virus killer known as VT (German I believe) has over 40 new file and link viruses which he will NOT pass on to the other authors, He has also severed close links with the Virus Research Centres.

Well, you can just get his virus killer then.....

And why not, after all, PD is PD and all virus killers on the Amiga are public domain, At least they are at the moment.

shareware

Many authors are a little disappointed with the support they have had from the public, Most of the virus killers are not actually PD, But are in fact ShareWare, Meaning that if you use it, pay for it.

The shareware fee for most of these programs is relatively small, £10 to £15, not a lot when you consider the cost of commercial packages.

Once you have registered a virus killer, you would usually receive regular updates which is one of the best reasons to register in the first place.

The general consensus is that we shall soon see our shareware virus killers disappear due to a lack of new material and financial support. What then? Quite simply, we will go down the same track as the PC. Commercial virus killers costing an awful lot of money and relying on exclusive new virus information and very little competition due to the competitors losing heart (remind you of anything?).

What about the sales from the virus killer disks such as "The New SuperKillers"? With these disks being public domain, very little money is actually made by the libraries who sell them, Certainly insufficient to pay royalties.

Due to the long standing status of the disk being in public domain, it would be rather difficult to change it to licenceware, plus there would always be the libraries who would rather collect the out of date virus killers and produce their own compilation to sell at a PD price, making it more attractive for the new user or the uninitiated.

It doesn't look quite so good any more does it? Well, I'm afraid it's not about to get any better, The authors of the anti-virus programs are not the only people who require the support of the public, The British Virus Research Centre also needs your support, Our help has been freely given over the years including telephone support of the virus killers. Help and advice with the removal of viruses plus the "cleaning" and data retrieval of disks which could not have been carried out by the usual methods. Also, we have carried out on-site virus removal and data retrieval for companies, where it was impractical to bring the data to us.

However, due to the current situation, we are considering the closing of the British Virus Research Centre from a lack of time, resources, support and interest.

Where do we go from here? Well, we must see what the future brings. **a**

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37. The Money Program (P)
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39. Easy Spell 2 (P)
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46. Deluxe Pacman V1.1a (P)
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50. Quality Time Anim (5 Meg) (4) (P)
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57. Bomb Jacky (NEW) (P)
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59. Tennis Game 1 Meg (P)
60. Escape 2 (P)
61. Neighbours Game (2) (P)
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64. Clip Art Disk (10) (P)
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69. Lethal Exit (P) (NEW)
70. Speed Limit anim (3) (3 Meg) (P)
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72. Station at Kern (3) (2 Meg) (P)
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user port

The

PD

Scoring

The marks awarded to each PD disk are based purely upon its own merits and, of course, our personal views. Value for money and reliability are also taken into account as well as features and quality of the software.

Compatibility

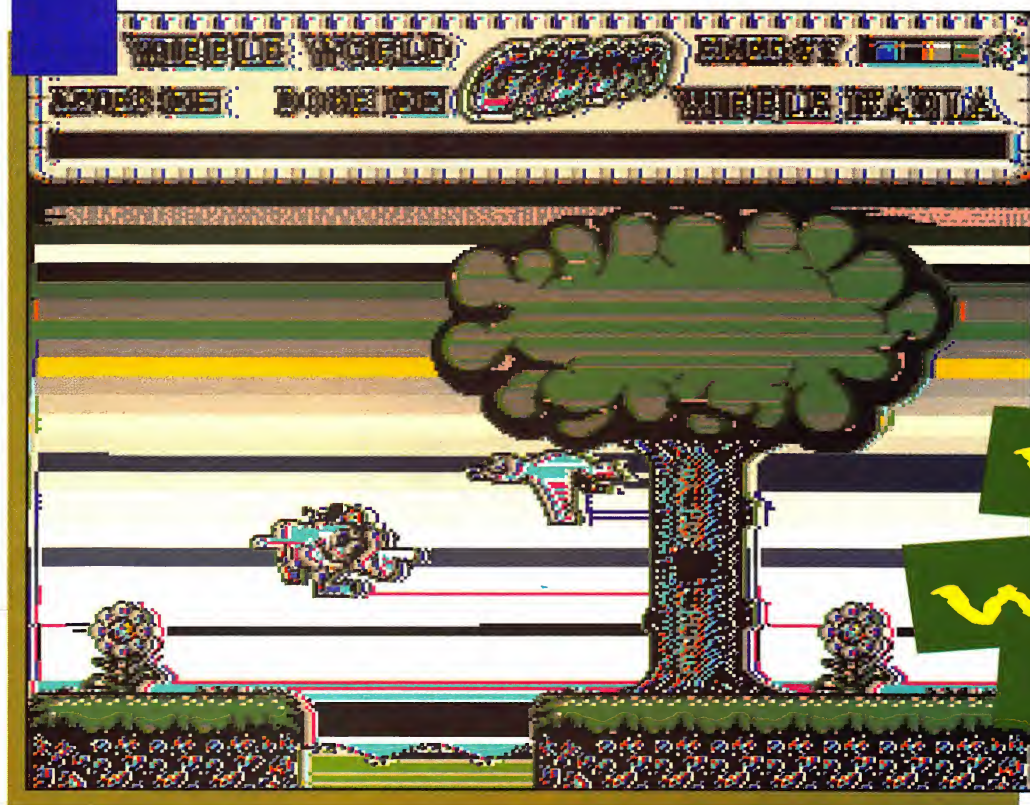
The PD disks reviewed in this issue were tested on an A500 with Kickstart 1.3. Please check with your PD supplier that the disks you are ordering are compatible with your Amiga. Amiga Plus, 600, or 1200 owners should be aware that roughly half of the software in the public domain will not work with Kickstart 2 or 3. Always ask first.

Gideon Overhead hunts out the best and the most interesting PD around.

Stakeout

PD or Shareware?

All freely distributable software comes under the rather deceiving umbrella of "public domain". Quite a lot of this software is, in fact, shareware. Shareware means that if you like the software, or use it regularly, the author will request a reasonable donation from £5 to £20. There is usually a note on the disk informing you if the software is shareware or regular PD. Whether or not you send a donation to the author depends totally upon your level of conscience and morals. Remember, if you send a donation to the author, you may receive an updated version of the software. Even if you don't receive an update, you will have given the author the incentive to continue contributing into the public domain.



wibble
wobble
giddy

Disk GA165
Magnetic Fields

Before you ask, Wibble World Giddy is not my nickname (or at least not when I'm sober) but is in fact an extremely high quality arcade adventure game. It can easily be compared to either Knight Time or Pyjamarama on the old C64 as you control a character who can walk around in his world, solving problems to get

eventually to the end of the game.

He does this by picking up objects that lie conveniently around and using them to solve problems that get in the way of his quest. For example, picking up a bucket of water to put out a fire, or using a cork to plug an erupting volcano, you get the

general idea. The game-play is excellent, and so are the graphics. This game is commercial quality and Magnetic Fields, who are a new PD company, are charging just £1 for it (as for all their PD) with no extra charge for postage. Very good value.

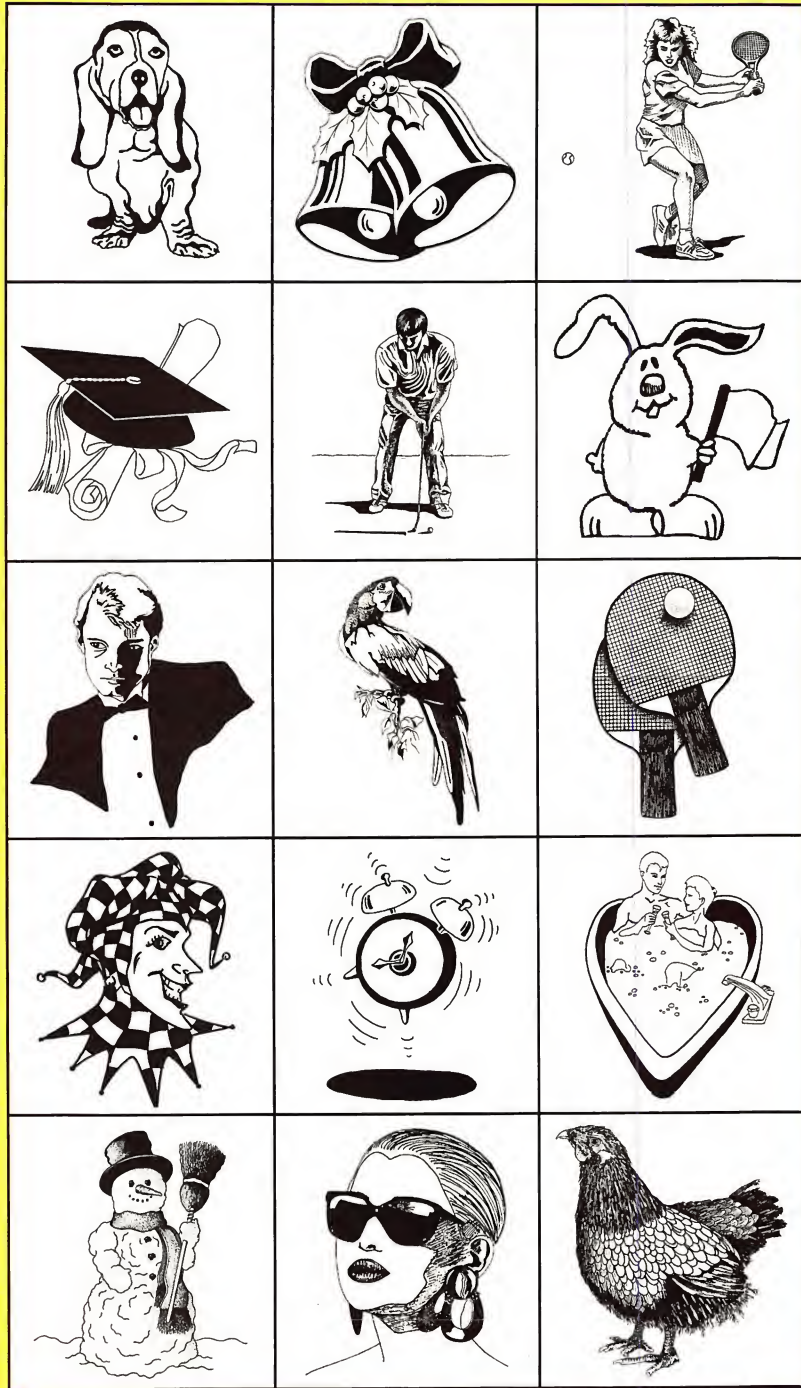
9/10

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Festivals				



Grapevine 15

Disk MA015
Magnetic Fields

Here is the latest and dare I say it, the greatest Amiga disk magazine available, Grapevine. Again coming on three disks, it contains a mind boggling 368 articles on such areas as, The Amiga scene, Poetry, Computing, Gaming, Hardware, Comms, RPG, Tv, Music, Wrestling(!?),

Fiction and Humour. Not all the articles however are worth reading, and many contain inane drivel, but just loading each one up and taking a quick glance at what they have to say will take a week at least.

9/10

American

Football

The Game

Disk 2571 A/B
17 Bit

I have reviewed a couple of disks which have explained the rules and background of American football before, but these are significantly different to warrant a review. These disks are as the others were, to explain the rules of American football which are quite difficult to understand. The worst part of this guide is the totally awful digitised HAM picture which makes up the title screen.

Don't let this put you off as the rest is quite well presented. Hyperbook is used to good effect to combine both pictures and text together on the screen. The pictures are just black and white and look to have been scanned in from a book but the quality is still reasonably good. So if you like the look of American Football but don't know what is going on, this guide will set you straight.

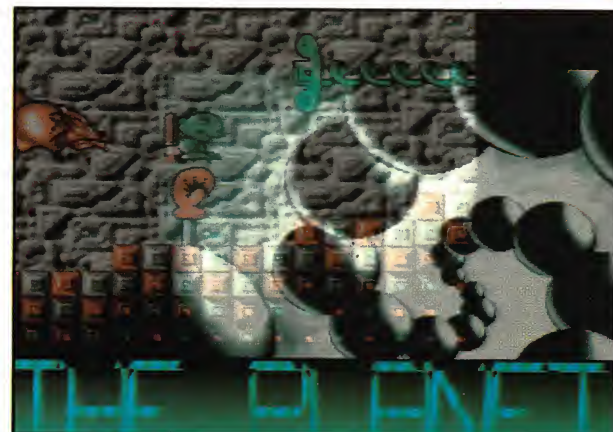
7/10

Bait Masking

Disk 2591
17 Bit

This latest animation by the master himself, Eric Schwartz doesn't disappoint. It features a worm who is lowered into the water to be used as bait. He seems very relaxed for a worm in danger. We soon see why as a fish swims along to take a bite. The worm pulls out a mask and frightens the fish away. Along comes another one and the same thing happens. Then a third fish tries his luck but the worm's mask doesn't scare him off. Instead the fish pulls out his own mask and makes the worm jump into the air. The anim last about 45 seconds, and requires 2 Megs to run.

8/10



Hois AGA1+2

Disk D819
NBS+BBBB

The "Hois" demo is the first AGA demo I have seen. Not long after I received this from NBS, I found a second Hois demo on The Big Bang Burger Bar BBS so thanks must go to them. By the time you read this though, it will probably be available in most PD libraries.

As demos go they are both very average but there are a couple of effects that make them stand out from others. The first thing that hits you is the lovely

smoothness of the colours. It adds a wonderful sense of quality to the work. At the end of the first demo there is an excellent effect where two 16 colour pictures are moved around and slowly fade in and out of each other. The second demo isn't as good but there are some fast and smooth running vector tunnels which look good, and some impressive scaling.

8/10

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Interference

Stakeout



This one file demo from sanity, is yet another polished production. It has some wonderful graphics and sound but all this is usually standard in demos today.

What we want is new routines, new effects, something original. There have been several noteworthy effects which have cropped again and again in a number of demos I

Disk DE075 Magnetic Fields



have seen in the past few months. These effects seem to be in vogue at the moment.

One is the dot tunnel, and the second is various scaling techniques.

This effect has probably come about because of the SNES and its own built in scaling chip. Demo writers have tried to mimic this scaling on the Amiga. While the

SNES's scaling is in real time, in all probability the Amiga's is pre-calculated.

8/10



Horn Concertos

Disk 2569 A/B
17 Bit

The author himself said that classical music on the Amiga is as rare as hen's teeth. This may be the case for several reasons. Most music demos are made predominately by the younger generation and many of these tend to be rave in style. It may also be the case that rave style music is much easier to reproduce than classical as this can be very complex.

Hugh Gammon has decided to tackle four of Mozart's marvellous Horn Concertos. All the

instruments are created by the Amiga's sound chip. I thought the French Horn sound would be quite difficult to re-create but it is one of the best instruments. All the movements have been very well converted and although they can't match actually listening to a real orchestra, they manage to capture the wonderful melodies (in perfect tune and time) that Mozart created.

8/10

7 7 7
AMIGA AMIGA AMIGA

AmosLoadsAmoney

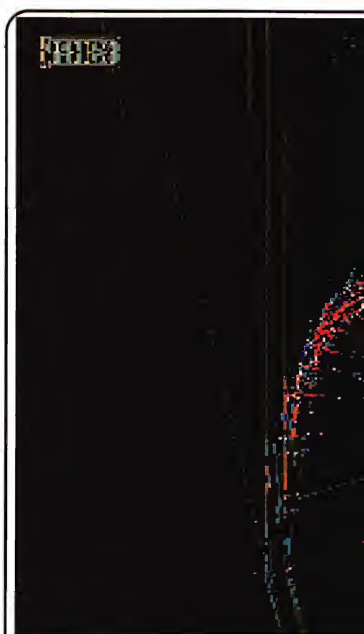
Disk 2572
17 Bit

I don't know what exactly it is about fruit machines that makes them so addictive. Some people gamble all their lives and don't win a penny. A fruit machine on the Amiga would seem at first thought to appeal even less as even if you did win money there is no way of it coming out of the computer!

But I found this fruit machine very addictive. Everyone knows how to operate one, just press the start button and four drums with pictures of fruit on will spin around. Different combinations win different amounts of money. Some of the fruit has a number through it. These will light up that number of letters in the LoadsAmoney word at the top of the screen.

When all these are lit you travel to a different screen where you play a higher and lower game which is also strangely addictive. Where the game falls down is in the sound department. I have heard better on the C64.

7/10



Technological Death

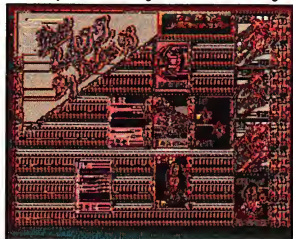
Disk 2597
17 Bit

From the beginning of this dance demo we are given exactly the amount time until the end, five minutes.

CATT

Disk CLE27
NBS

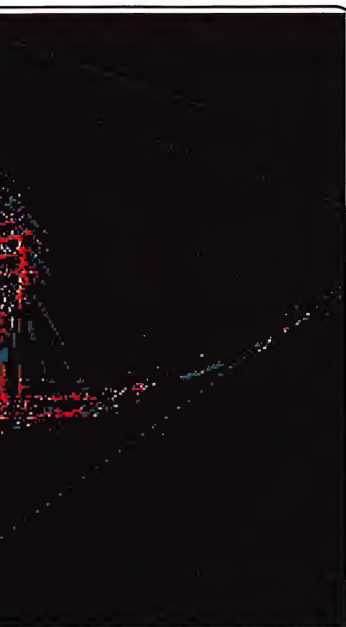
CATT stands for Complete Amiga Tarot Translator which is a type of electronic fortune telling. Tarot is one of the oldest surviving card games. Originally it was played with a pack of 78 cards on which were esoteric designs. It was discovered by the Gypsies when they arrived in Europe and they started using it for fortune telling.



When running CATT the first thing you do is to pick ten cards at random from the pack. These are selected by pressing the left and right mouse buttons alternately, this was done as it is supposed to make you use both sides of your brain. You can decide whether to believe this for yourself.

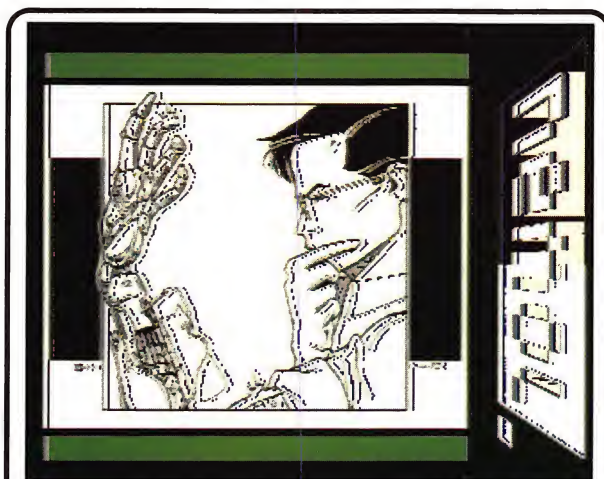
The combination of the position and type of the cards will determine the prediction. After all the cards are chosen, you are given an explanation of every card's meaning. You just have to hope that the Death card doesn't turn up! CATT requires at least 1.5 Megs of memory to run and comes on three disks.

8/10



We know this by a timer which sits in the top left hand corner of the screen and counts down. The best aspect of the demo is the way every visual effect is locked in time with the music. It is a fast moving demo with lots of flashing lights and loud music ideal to put on at parties!

7/10



Boundless Void

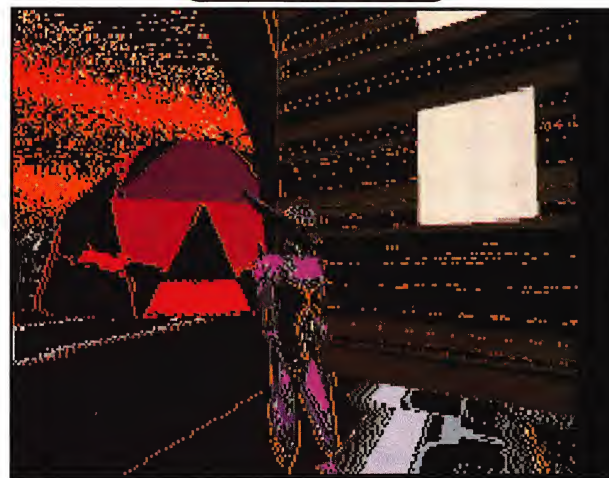
Disk D849
NBS

This demo was made by a group called Nemol which is not only an anagram of lemon but also of melon. In fact the logo is the same as the demo group Melon. This however is not the work of the melon group. It is not as imaginative and as well put together. It contains all the ingredients you expect in a typical group demo, vectors, fast paced music and strange looking pictures!

7/10

Lock On

Darren Powell



This massive animation comes on four disks and loads in four separate parts. It was sent to me by Mr. Powell who has been developing it in his spare time. It was produced using

Imagine V2.0 on a basic A1200 with no hard drive and no extra memory! The final rendering had to be done on his friend's computer as he not surprisingly ran out of memory.

The animation itself is about half screen although there is a full screen version but it is 10MB in size! Run via disk, waiting time is long as each part takes about a minute to load and 4 seconds to play depending on how fast your machine is. The best way to view it is to either put it onto your hard drive or to play it from ram but you will need about 5 Megs to do this. The animation itself was difficult to understand at first as it runs so fast that it is over before you can analyse it.

I was able to load it into ram and everything suddenly became clearer. As the entire anim lasts about 15 seconds the story is quite brief also although I don't think it is really that important. A man is seen walking down a street, there is a helicopter after him, he gets on a motor bike and escapes. Anybody who is looking to employ someone who is good at animation should contact Darren because he wants to pursue a career in this field.

9/10

8/10



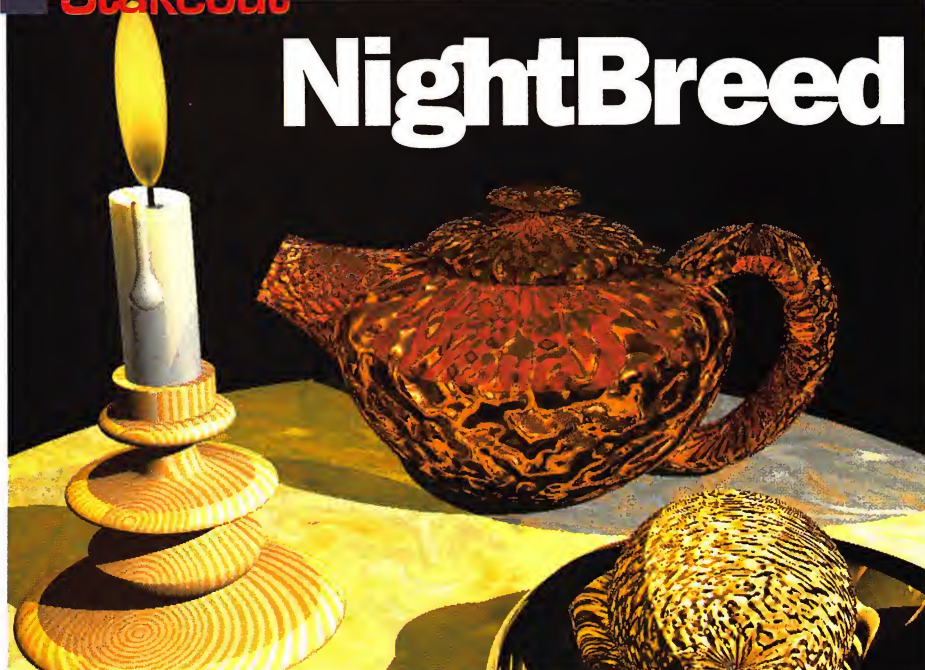
This disk contains five card games for you to sample. If you decide you like them then you can buy a further two disks full of similar games at £10 each. The five games are: Carlton, which uses two packs of cards and is quite difficult to win. Martha, played with one pack and requires a bit of luck to win. Pas Seul requires a lot of skill to finish

successfully (I found this my favourite). Slider is quite tricky to play as cards can only be moved in certain ways. Finally there is Poker Squares which is played against the computer. The object of this one is to place cards in a grid so that they make up poker hands both

horizontally and vertically. All the games are played via the mouse by clicking on a card and dragging it across the screen. This sampler costs £2.50 and is very professionally written.

Stakeout

NightBreed

Disk 2580/1
17 Bit

This is an AGA only slide-show and contains 14 pictures of varying quality. I was amazed to find a stretched and rather bad quality conversion to HAM8 of one of Gary Fenton's excellent VLab grabs. This was a picture of two Cans in front of our A3000. It was printed in our November 92 issue but Gary must have Uploaded the original file to a BBS somewhere. This picture has also appeared in the July issue of ST Format of all places, a popular picture.

7/10

Cynostic
Slide
showDisk 2577
17 Bit

This is a disappointing slideshow as it only contains five pictures. All of them are in medium resolution and are of high quality. They are all rendered, some in VistaPro, and some probably created in Imagine. It is strange that the pictures are so large, firstly they are in medium res, and secondly they are crunched. Perhaps it would have been better to use JPEG compression, but then again if you had an unaccelerated A1200 you would probably have grey hair by the time the slideshow actually finished!

6/10

Two issues ago I reviewed a program called Writer's Directory by Immediate Arts. I unfortunately neglected to include the Address so for anyone who is interested, here it is:

Immediate Arts,
26 Lyndhurst Gardens,
Glasgow,
G20 6SY,
Tel: 041 946 5798
(Cost £3.50)

If you have created a masterpiece and you would like it reviewed here or if you own a Public Domain company and want to contribute new and interesting PD, please don't hesitate to send it in. The address is:
**The PD Stakeout, AUI, 48 George Street,
London W1H 5RF**

Contacts for PD reviewed in this issue

/NBS
U/F6 1 Chain Lane
Newport
Isle of Wight
PO 30 5QA
Tel: 0983 529 594

17 Bit Software
2/8 Market Street
Wakefield
West Yorkshire
WF1 1DH
Tel: 0924 366982

Magnetic Fields
PO Box 118
Preston
Lancashire, PR2 2AW
Tel: 0772 881190

Darren Powell
126 Regent Rd
Hanley
Stoke On Trent
ST1 3AY
Tel: 0782 285220

The Big Bang
Burger Bar
BBS, All Speeds
TEL: 081 909 2064

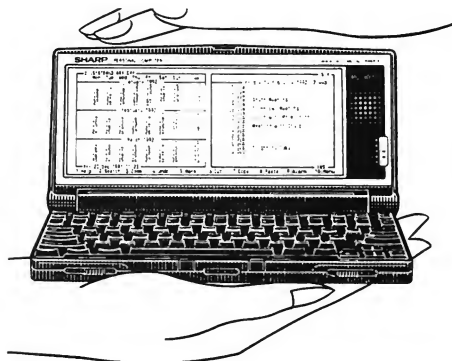
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- SHA 256 Carrying Case £34.95 & VAT

HP 95 LX

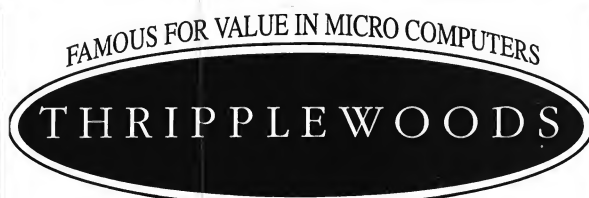
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amiga answers

OS

Dear **aii**

Why, when attempting to read doc. files on IFF Wizard, do I get the request "Insert volume lha" and "Cannot find C: muchmore"? I have more PPmore and other text readers in my libs. drawer on my hard drive and IconX in my C directory, but I still cannot read the document files.

N.F.Wombwell
Hampshire

Dear N.F.Wombwell

First things first, you should store your text readers in the C directory, or in a directory that you have added a path to. The libs. directory is normally only used for libraries. That aside, there is a gremlin in the coverdisk files. It is not serious, and it does bring up an interesting point about how the Amiga can run a program from another program.

The Icon is almost another program that is associated with the main program, and it can be used to give specific commands to the main program. It can invoke another program with data, which is what should happen with the IFF Wizard doc. files.

Click once on the doc. icon and then select Information from the icon menu of Workbench. If you look in the Tooltype requester you will see something like "lha:more"; click on this and change it to "C:more" and save it. All should work normally from then on.

OS

Dear **aii**,

I have had my 500+ for two and a half years now and have upgraded it periodically with 1 MB extra memory, a second disk drive and an 80 MB GVP hard disk. I have not had any problems with these so far, but I recently purchased a Panasonic KX-P2123 24 pin colour printer, and got Wordworth V1.1 with it. I loaded the correct printer driver onto the disks and then went through the whole process again loading it all onto my hard disk.

I then wrote a few pages on the program on my hard disk and tried to print them, the screen kept on flashing with the message "Can't access printer device". After quite a few tries at this I resorted back to the old floppy disks and the printer worked.

Could you inform me as to what I have done wrong? The other problem I have is that I can't get my printer to do any graphics at all - even underlined text won't work!

Can you help?

Stephen Pollard
Montrose, Scotland.

Dear Stephen,

The Amiga is TELLING you what is wrong: "Can't access printer device". So the obvious solution is to check if your printer device is installed. Preferences/Printer will tell you if the printer driver is there. Have a look in the devs. directory and see if the printer device is there. If not copy it to there from your Workbench disks. I don't know of a specific Panasonic printer driver yet, so you will have to set the printer to emulate an Epson (use the EpsonQ or EpsonX drivers). Things should then start to happen.

OS

Dear **aii**,

I have purchased your journal which includes the Superdisk 23. The only program I am interested in is the Envprint one. I have tried to decrunch this and transfer it to an empty formatted disc, but find the instructions in the journal are very sketchy.

I get request for "Volume lha". Will you please tell me what or where I can find "lha"?

I would appreciate your advice on how I can obtain a copy of a decrunched copy of Envprint, which I can use.

Yours faithfully
C.L.Denton,
Middlesbrough, Cleveland.

Dear C.L.Denton,

Yes, well, a mess up on our part. The responsible person will have to spend the next week sticking the

coverdisks on the front cover.

The problem is very easy to solve. Click once on the icon for the doc. file. Look in the Tooltypes box. You will see a line "lha:more"; edit this to point to where you have your text reader. If you keep "more" in your utilities directory, then it should read "utilities:more".

This is the same type of problem as N.F.Wombwell, so read his letter for more information.

OS

Dear **aii**,

I am new to your magazine and the first issue I bought was your February edition with the Hyperhelpers coverdisk and I thought it was very good. However, I have followed Gary's instructions carefully time and time again and although I can get the programs on my trusty old Workbench 1.3, when I do the install bit on Launchpad, it says that there's an error and that it can't open it. It also says this when I try to open DosHelp or DosHelp13, please, please, please can you tell me what I am doing wrong?

Adam Locker
Cornwall

Dear Adam,

I just dragged the Hyperhelpers drawer over to my hard drive, clicked Install and all was well. You have not really provided me with enough information on your system for me to give you a really meaningful answer, but all you have to do is:

Use a second drive if you have one. Format a new disk, copy Hyperhelpers on it and install. (You may have to make a little room on your Workbench, as Gary suggests).

If you only have the one drive then you will have to delete as much as possible and only copy the parts of Hyperhelpers that you need. The program does work; I have just verified it directly from the coverdisk.

GENERAL NOTE:
PLEASE READ THE LITTLE
INSTRUCTION BOX WHEN
WRITING TO AMIGA ANSWERS!

Answer Types

APPS

Programs etc]

VIDEO

Video related problems

COMMS

Communications

PROG

Programming

OS

Operating System

PRINT

Printer Problems

OTHER

For anything else

PRINT

Dear **aii**,

I have recently purchased a new A1200 and a HP DeskJet 550C. I am happy with the A1200 but I am having problems with the Deskjet; when I print in text mode it is beautiful, no problem, but when I print in graphic mode with the text the text is dark green and the colour match to my graphics is out i.e. black is green/yellow is light green. I have tried to adjust the printer driver for it but there is no real improvement. Can you help me?

Your sincerely,
R. Macauley
Dunbartonshire

Dear R. Macauley,

The only thing that you can easily do that should help is to set the colour correction gadgets on in the printer graphics preferences program.

You MUST make sure that you are trying to print the correct colours. A slightly off black very often comes out green with any colour printer. Firstly create a small test picture, not too big or you will eat up your ink, with just the primary colours of your printer. The printer self test should tell you what they are. If you CANNOT get this simple test to work, then you will need to investigate the printer driver. It might also be worth checking to see if the printer is set up correctly, and that it is not in any 'emulation mode'.

If this simple test works, try creating another test using the complementary colours. If you get that to print correctly you should be OK for just about any graphics.

I have seen some 500C drivers about, they are in the ICPUGMEM conference on CIX, so if you are a ICPUG member you can get the files from your disk copier.

Another REALLY good printer driver system is Wolf Faustus Print Studio. That gives just about the best control over the printer output that I have seen so far.

OTHER

Dear **au!**

I read with interest your reply to Guiseppe (p98 Jan 92 issue), as here in Australia we received our January 93 issue without a CoverDisk and with a sticker that says: "WE REGRET THIS FREE OFFER IS UNAVAILABLE TO AUSTRALIAN READERS." Inquiries to my newsagent have not yet helped. To the best of my knowledge no other imported magazines have been affected and I am not aware of any taxes on disks that would raise the price to a prohibitive level. (As a general guide, with or without disks, English mags are approx A\$10 to A\$12 here in Australia, more if airmail. Australian mags A\$4 to A\$7). For me half the reason for buying **au!** is the coverdisk.

There are a couple of problems I would like help on. My equipment is an A500 with 512K + 512K A501, 2 disk drives, 120Mb IMPACT series II and a MPS 1230 printer, Workbench 1.3 and Workbench 2.0.

1. Besides Addbuffers what is the best way to free up chip or fast memory used by the hard drive, whilst still leaving me with access to it. (I use script files to load programs or games whenever I can). When I boot up with the hard drive I find my free memory is approx chip 436864 and fast 145888. I do realize adding more fast memory would be best, but for the next few months I cannot afford the cost.

What is the best printer driver for the MPS1230? I am currently using either EpsonX or EpsonQ; the printer is in the EpsonX mode at the moment.

Do I need to keep the .info files, what are they for?

Can I fit a 2Mb Agnus? If so, what modifications would I need to make?

Michael J Jeffs
Nth Ipswich
Australia

Dear Michael,
I am very sorry to hear about the coverdisk problem in Australia. I do know that your government does get some funny ideas on its import policy from time to time, but why

single out **au!**? The only other reason I can think of is that someone is running a scam on you but that is speculation only. I will pass your letter to the Editor, as I do know that yours is not the only complaint we have received. All I can say is that ALL **au!**s leave us intact.

There is a buffer field that you can modify in HD Toolbox. Hopefully the IMPACT will have a similar field; see what it is set to. Also, don't add too many buffers, because it does not help with low memory machines. Check to see that you are not loading too many resident programs, as they also eat up memory. That's all I can say at the moment without seeing your startup-sequence and user startup files.

You are quite correct in saying that more memory will help and I hope you can afford some sooner rather than later.

EpsonX should be fine for the 1230. Do you have a problem with this printer/driver?

The .info files are the icons. They also have information in them from the Tooltypes. Some programs are happy to run without them, but some like to have the icons. It depends on the program.

As for the 2Mb Agnus, we have printed a few answers on this subject, but I would not really recommend modifying a 512K Chip RAM Amiga, unless you are very desperate.

OTHER

Dear **au!**

This is my second and perhaps last letter I write to an Amiga mag. Before I decide I would appreciate some information.

I own an Amiga 1200 with 80Mb hard drive. Amongst other things I use it to run PC Task V2.02, as I need to use some PC software not available for the Amiga. However the speed is totally unacceptable, (my guess is that PC Task runs my program at 1 Mhz at the most). At present I think my options are:

- 1) Add some fast Ram
- 2) Add an accelerator
- 3) 1 & 2
- 4) 1 & 2 with an FPU
- 5) Sell my Amiga and buy a PC
- 6) Wait for an emulator board (how long?)

I don't want to spend any more than £500 (I can buy a second hand PC for less). If I accelerate my Amiga, will my emulated PC speed up at the same rate? I would like to know what kind of speeds I can expect from PC Task on points 1 - 4 compared with, say, a 25Mhz PC.

I don't really want to get rid of my Amiga, but having read about Windows NT, and considering

that I would get a high density drive, a VGA or SVGA monitor and possibly of a CD-ROM, then getting rid of my A1200 seems to be an attractive choice, especially since Commodore only seem to be interested in stranding their loyal users.

Just a point regarding your answer to B.R.Martin's letter in the July issue: "You wouldn't ask a car company to sell an upgraded engine... Why do we think differently about computers?"

My reply to that is "Software companies give users an upgrade options, so why not hardware companies? The more I think about what CBM have done, the more I want a PC."

Andrew Greaney
Perthshire
Scotland

Dear Andrew,
Generally...

The A1200 will run better with some fast RAM, and RAM is ALWAYS useful. You seem to be moaning about the speed of PC Task; I can't understand your problem at all. You must surely release that PC Task is an EMULATOR, not a PC. You might have a problem with the concept of emulation. Basically there are two systems that are often called emulators, one mistakenly so. If you have a software system that takes 80x86 code and produces a similar effect on another processor, and then converts the results back into 80x86 code, that is an emulator.

You can guess that all of this conversion eats up processor time. An emulator will ALWAYS run very slowly.

The other system is where you have a hardware unit that contains the 80x86 processor, glue logic, maybe some RAM, etc. This will make use of the Amiga's resources such as screen, keyboard and disks. This will run at the full speed of the hardware unit, governed by the amount of cross system I/O that takes place.

The A1200 uses a 68020 processor and is already quite powerful. You would need quite a jump in power to make you sit up and take notice. The FPU only speeds up some applications, those involving floating point calculations.

The accelerator will speed up PC Task by the amount that the accelerator speeds up the Amiga, but remember that PC Task is an emulator and will still run very slowly.

I estimate that the A1200 is about on par with a 386 running windows.

Windows NT... do you really want a system that demands something like 16 Megs of RAM and 80 Megs of hard drive space BEFORE you can even use it? The AA chipset is as good as an SVGA

anyway, and HD drives are available. Why do you want one? Disks are cheap, if your data will not fit on one then use two disks. CD ROMs are available as well, and I expect to see some further announcements on this subject soon, if the rumours are true.

I do not understand your comment about Commodore 'stranding' their loyal users at all.

As for upgrades, Commodore have given their users upgrade options right from the days of the PET. The C64 could understand a lot of PET software, the C128 could understand the C64. With the Amiga range, the upgrade was even better - the A1000 software could run on the A500, as could the A2000, as could the A1200, as could the A3000, as could the A4000. That is a real upgrade path. OK, I know what you are thinking about, and that is trade in deals. Get real, the profit margin is far too small on hardware for this to be economical.

Software is a different matter. The production costs are very small. (Disks, manuals and packaging) However the development costs are quite high. But it is only man hours, and that can be spread over a lot of sales. Hardware is not like that at all. What use is a 68000 machine when everybody is buying 68030 machines, etc?

As for your last comment about wanting a PC... well it takes all sorts, but I have the greatest displeasure to have to use PCs. They try to multi task with an abomination called Windows (only a 486 starts to make a dent in the performance aspect) and they cannot seem to keep a standard system setup at all. I am constantly switching configurations because one piece of software needs a different configuration to another. I am about 300% more productive with the Amiga than I am with a PC. That is a FACT from my personal experience.

What are you so desperate to run on a PC anyway? So far, I've managed to find acceptable/compatible programs on the Amiga whose data I can export to a PC without too much bother.

When writing to Amiga Answers include as much information as possible about your system and about which software/hardware you are running. This will help to determine what your problem might be and its solution! Send your questions to:
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Last month saw the launch of the **Indi Multi Media Club** and what a response there has been. Early indications show that without a doubt it is destined to be the largest of it's kind. Apart from all the obvious club benefits the Indi operation offers a true 'One Stop Shop' for all members. On offer each month with an ever increasing product range, members can obtain software to cover every application, including **Morphing Rendering Ray Tracing and Video**. There's a vast range of accessories and peripherals again encompassing members every need and a PD Library second to none. The Club also offers a very comprehensive range of videos including the **Cult Manga Titles, Music Features and Special Interest**. There really is something to suit everyone's taste.

For those members with CD ROM players (including CDTV, PC and SEGA) there's plenty on offer. Not only does the 'Club' cover CD ROM titles, there are also some great audio titles available.

With so much happening on the **Multi Media** scene it's hardly surprising that Indi are there to provide a competitive single source of product supply. Membership costs only £10 and each member receives a quality gift on joining, even though there is absolutely no commitment to purchase at any time. If you would like to be a part of this exciting club then call **Indi** on 0543 419 999.

DMA ENSURES HIGHEST PRACTICE

As with most industries, the UK's personal computer industry has its share of cowboys operating in the mail order sector and at the receiving end a line up of despairing consumers who have suffered at their hands.

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Membership of the DMA is not conferred lightly - it is a privilege which entails responsibilities, to the consumer as well as to the industry. The foundation for this must be good practice. DMA members are required to abide by the highest standards as laid down in the DMA's code, enforced on members by The Authority of the DMA a separate body with an independent Chairman, and which is an assurance of vigorous self - regulation and professional responsibility.

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Alison Slan
(Director of Public Relations, DMA)



INDI DIRECT MAIL Proudly Presents THE JAKKI BRAMBLES COLUMN

Hi,

It seems that every month I'm able to report some exciting news from Commodore. This month is no exception but probably the most exciting to date.

A1200 PRICE CRASH!!! That's right Commodore have announced that the **RRP** of the **A1200** is now **£299.99**. At this price there cannot be a better computer anywhere based on a Power to the Pound ratio. Armed with this news, Indi have got some pretty exciting A1200 offers, just take a look in the following Indi pages!!

Do you like the new Indi Logo?

I'm told that a certain person in the Indi Marketing Team has made it clear that when it comes to the **Amiga 4000/030** he is the *main man*.

So equipped with an **Opalvision 24 - bit graphics card** he was set loose.

The image was converted to an IBM compatible file using Art Department Professional, ported over to a **1.4 gigabyte graphics PC Workstation** then using the A4000 workbench file transferred and finally slotted into the Indi Advert.

I'm sure that you will agree that the end product is superb and a real demonstration of the Amigas Graphic Capabilities. Still on the subject of the Amiga the winner of this month's 'Hints and Tips' competition is Peter Shelley of Stafford. Peter shows how you can save memory when using your Amiga.

Edit the startup sequence which can be found in the workbench partition in the 'S' directory. Delete the last line of the sequence: "END CLI". This will enable you to quit workbench (once loaded) and drop into shell (Amiga DOS) saving over 100 K that would normally be taken up by the multi tasking windows environment. All commands are still resident including DIR, DELETE etc... Of course I can only recommend this for those users who wish to work outside the Amigas graphical environment and who are conversant with the Amigas command line interface.

Thankyou Peter, your prize is on its way, many thanks to all those who have written to me, keep those letters coming.

Buying a printer to go alongside your Amiga is a big decision and one that every serious Amiga owner has to face.

Everyone knows that Indi fully researched the printer market before choosing Panasonic printers and believe that Panasonic Quiet Printers are the best on the market, but they would say that wouldn't they!

Now I'm told that Romtec the computer Industry analysts have announced that the **Panasonic KX-2123** has become the **UK's top selling colour matrix printer**. Well done Panasonic (and Indi) Indi have just sent me details of their new **Multi Media Club**, it's a very interesting idea offering home entertainment products under one roof not just computer games. It's well worth a look.

Kind Regards,

Jakki Brambles

Apologies from Indi that we ran out of signed Jakki Brambles photographs. Jakki has now signed more copies and they are on their way.



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INDI is a wholly owned subsidiary of a public company now in its tenth year of trading and specialising in the supply of computer products.

With a turnover approaching £30 million per annum, we have the resources and the purchasing power to offer you the best deals, delivered next day nationwide and always around when you need us.

SUPPORT

INDI sales team have been trained to service your order with the utmost care and efficiency. All stock offered for sale is held in a central warehouse, centrally at our group warehouse complex and is available for next day delivery, direct to your home or business. If at any time you are out of stock your money will not be refunded until the product is available (a point of checking should you be tempted to purchase elsewhere).

General information regarding product is available from our sales team, however technical support is always on hand should you require assistance.

Prices quoted are inclusive of VAT.

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CREDIT FACILITIES

We are now able to offer competitive credit facilities on all orders over £200. All credit facilities are subject to status and applicants must be over the age of 18.

If you would like a quote simply call our order line where acceptance can normally be confirmed within the hour. We are also able to offer Credit Insurance to cover repayments in the event of sickness or unemployment.

	12 MONTHS		24 MONTHS		36 MONTHS	
MONTHLY PYMTS	TOTAL PAYABLE	MONTHLY PYMTS	TOTAL PAYABLE	MONTHLY PAYABLE	TOTAL PYMTS	
£22.00	£264.00	£12.00	£298.32	£9.31	£335.63	
£54.99	£659.88	£31.06	£745.44	£23.27	£837.72	
£109.98	£1319.76	£62.13	£1491.12	£46.54	£1675.44	

29.9% WRITTEN QUOTATIONS AVAILABLE ON REQUEST after deposit paid

TELESALES AND SPECIALIST SERVICE

Our products are guaranteed for 12 months. All products carry a 12 months at home service and repair guarantee (where indicated). In the unlikely event that any product purchased from INDI arrives at your home faulty, we will collect from your home and replace the product completely free of charge.

As part of our policy of continual product development and refinement, we reserve the right to change specifications of products advertised. Please confirm current specifications at the time of ordering.

Prices are valid for month of publication only.

OFFICIAL A1200 HD SYSTEMS

The Amiga 1200 supplied by Indi Direct Mail now includes the official (legal) Commodore installation disk and hard drive utility manual. Indi are proud to be an official supplier of Amiga 1200 Hard Drive systems, that include the official software, documentation and on-site warranty.

STOP PRESS

ALL A1200 PRICES CRASHED INCLUDING ALL HARD DRIVE SYSTEMS

80 Mb Hard Disk upgrades available on any A1200. Upgrade does not invalidate your Wang warranty on A1200 and Hard Disks. Phone for a quote.

AMIGA A4000



FREE
INDI
GRAPHICS
PACK SEE
ADDED VALUE
PAGE

NEW MONITOR RANGE

THE NEW DUAL SYNC1942 Monitors have been specially designed for the New Amiga 1200 and 4000 computers. Both monitors feature built-in stereo speakers.

INDI PRICE

1940 Monitor £279.99

14 inch screen size - 0.39 mm dot matrix

INDI PRICE

1942 Monitor £379.99

14 inch screen size - 0.28 mm dot matrix



ZAPSAC AND T-SHIRT

INDI PRICE £17.99

(Free with A1200 Comic Relief Pack, INDI A600 Accessory Pack)



Parnet Adaptor for CDTV

Connect a CDTV player to any Amiga, and access the world of CD-ROM software. The Parnet interface and software will allow the Amiga CDTV to be used as a CD-ROM drive with any Amiga and will give any Amiga owner access to the vast range of CDTV software currently available. The CDTV player offers excellent value for money when compared with a standard CD-ROM drive and interface. Most CD-ROM drives will set you back over £400 when CDTV will cost you less than £300 and will play audio CDs in addition to CD-ROM / CDTV disks your Amiga, interface cable and PD disk with driver software for your CDTV player. (The Parnet adaptor can be used to link any Amigas together)

INDI PRICE

£39.99

A4000/030 + CDTV + 1942 MONITOR + PARNET. INDI PRICE £1599.99
CDTV + PARNET. INDI PRICE £329.99

AMIGA A600 PRICE CRASH



THE WILD THE WEIRD AND THE WICKED A600 is an ideal starter pack containing a considered mix of software, making the most of the Amigas capabilities.

PACK CONTAINS:

* A600 Single Drive
 * Built in TV Modulator
 * 1 Mb Memory
 * Pushover: Grandprix
 * Silly Putty: Deluxe Paint III
 * Mouse and Manuals

NEW
LOW LOW
PRICES

~~£289.99~~
£215.99

A600 - SD A single drive Amiga for those of you requiring a basic A600 at a very competitive price.

PACK INCLUDES: A600 single drive, built in TV modulator, 1 Mb memory. 12 Months at home service

INDI VALUE ADDED FREE * Kick Off 2 * Pipemania * Space Ace * Populous * Microswitched Joystick

INDI PRICE

~~£239.99~~

£189.99

A600 EPIC PACK (40 Mb HD) PACK INCLUDES:

A600 Hard Disks (40Mb) * 1 Mb Memory * Epic * Rome * Myth * Trivial Pursuit * Amiga Text * Deluxe Paint III * 12 Months at home service.

PLUS INDI ACCESSORIES PACK AS LISTED COMES WITH AN EXTRA 512K RAM EXPANSION FREE.

INDI PRICE

~~£395.99~~

£379.99

INDI A600 ACCESSORY PACK (Featured with WWW)

* Microswitched Joystick * Lockable Disk Box * Disk Wallet * 10 Blank Disks * Kick Off 2 * Pipemania * Space Ace * Populous * Zapsac A600 Carry Case * Zappo T-Shirt.

INDI PRICE

£26.99

WANT THE BEST IN PROFESSIONAL AMIGA. WHY NOT TAKE ADVANTAGE OF THE CREDIT DEALS AVAILABLE (SUBJECT TO STATUS). CREDIT AVAILABLE ON 6, 12, 18, 24, 36 MONTHS. WHY NOT RING NOW FOR A QUOTE SAME DAY RESPONSE



AMIGA RECOMMENDED PERIPHERALS & ACCESSORIES

NEW FROM MICROBOTICS!!! MI230XA ACCELERATOR LAUNCH!!

Microbotics beats the competition in price/ performance/ features and configurations. INDI is very pleased to announce the availability of the new 68030 accelerator product for the A1200: the microbotics MI230 XA (call it the "XA" for short). 50 Mhz as standard! Huge 128 MB memory design is standard (the biggest memory space in any A1200 peripheral) just look at these specifications and prices!

MI230 XA W/40 MHZ EC 030 0MB **INDI PRICE £299.99**
MI230 XA W/40 MHZ EC 030 4MB **INDI PRICE £399.99**
MI230 XA W/40 MHZ EC 030 8MB **INDI PRICE £499.99**
MI230 XA W/50 MHZ MMU 030 0MB **INDI PRICE £399.99**
MI230 XA W/50 MHZ MMU 030 4MB **INDI PRICE £499.99**
MI230 XA W/50 MHZ MMU 030 8MB **INDI PRICE £599.99**



MBX1200.

The original and best floating point unit and memory upgrade for the Amiga A1200. Available with 0,4 or 8 MB 32 bit Fast RAM and a choice of floating point units. N complete with real time clock (RTC)

IMBX1200Z 6881 14 MHZ 0MB **INDI PRICE £149.00**
MBX1200Z 6881 14 MHZ 4MB **INDI PRICE £299.00**
MBX1200Z 6881 14 MHZ 8MB **INDI PRICE £399.00**
MBX1200Z 6882 25 MHZ 0MB **INDI PRICE £199.00**
MBX1200Z 6882 25 MHZ 4MB **INDI PRICE £349.00**
MBX1200Z 6882 25 MHZ 8MB **INDI PRICE £429.00**
MBX1200Z 6882 50 MHZ 0 MB **INDI PRICE £399.00**
MBX1200Z 6882 50 MHZ 4MB **INDI PRICE £499.00**
MBX1200Z 6882 50 MHZ 8MB **INDI PRICE £599.00**

AUDIO VISUAL

MEGAMIX. Low cost, hi spec digital effects cartridge plugs into the printer port of the Amiga. Allows stereo sampling from almost any musical source.

INDI PRICE £29.99

TAKE 2. Animation package is a must for computer artists and enthusiasts of all ages. As used in Rolf Harris Cartoon Club.

INDI PRICE £37.99

VIDI AMIGA 12. The ultimate low cost colour digitiser for the Amiga. "The best value full colour digitiser on the market" AMIGA FORMAT.

INDI PRICE £75.99



ROCTEC ROGGEN

Entry level Genlock for all Amigas. Record stunning Amiga Graphics into standard video or overlay text and graphics onto a video signal.

INDI PRICE £69.99

ROCTEC ROGGEN PLUS.

As above but with extra features such as tinting and signal inversion. Allows for real time editing of graphics. Compatible with all Amigas.

INDI PRICE £133.99

ROCTEC ROCKEY.

The ultimate accessory for Amiga / Video fans. Separate RGB controls to chroma key on any colour.

INDI PRICE £249.99

ROMBO VIDI AMIGA 12 (RT). Based on the best selling Vidi Amiga 12. This all new version offers real time colour capture from any video source. Full AGA chipset support as standard for all A1200 / 4000 users.

INDI PRICE £139.99

MEMORY UPGRADES AND ACCESSORIES

M501 The original 0.5MB battery backed upgrade for the A500.

INDI PRICE £29.99

M502 The original H1 MB battery backed upgrade for the A500.

INDI PRICE £49.99

8 Up memory board. Designed for the A1500/ A2000. Memory upgradeable to 2/ 4 or 8MB

INDI PRICE £69.99

Hard frame suitable for A1500/ A2000. Allows for the interface of a SCSI hard drive.

INDI PRICE £110.99

ROMBO VIDI AMIGA 24(RT). For the more serious user, this 24 - bit version will again capture from any video source with true photo realistic images! A staggering 16.7 million colours can be utilised with incredible results. Full AGA chipset support.

INDI PRICE £239.99

AMIGA PERIPHERALS

2MB SMARTCARD. The original and still the only fully PCMCIA compatible memory card for A600/ A1200. Comes with lifetime guarantee. Beware of cheap imitations.

INDI PRICE £129.99
4MB SMARTCARD. Same as above but maximum 4MB.
INDI PRICE £199.99

ZAPPO 601. Trapdoor upgrade for the A600. 1MB with RTC.

INDI PRICE £49.99

ZAPPO 601 INC. As above only 512K no clock **INDI PRICE £29.99**



DISK DRIVES



ZAPPO EXTERNAL FLOPPY

You've seen all the reviews on this popular and affordable second Amiga drive. Compatible with all Amigas.

INDI PRICE £59.99

"Quality: 9 out of 10." Exceptional value for money.
AMIGA COMPUTING JAN 93

MONITOR



1084ST MONITOR.

Commodore's original and best selling colour stereo monitor. Now includes swivel and tilt stand for total ease of use.

INDI PRICE £189.99

(£179.99 if purchased with A600 / A1200 / A1500)



Third Party OpalVision Software

(Available now or coming soon)

Aladdin 4D, Alink Video Editing Products, Art Department Professional, Caligari 24, Cine Morph, Fractal Pro, Image FX, Imagemaster, Imagine, Michtron Entertainment Products Morph Plus, Real 3D, Scala Multimedia 200, Texture City Image Libraries, 3D Professional, Transporter, Tv Paint, Vista Pro, Video Visions and more!!!

The NEW OPAL VISION system (Rev.2)

The amazing Opalvision 24 - bit graphics board and software suite has been updated and is now even better value for money.

The software suite now includes:

Opal Paint V2.0 - Now includes full magic wand implementation and Alpha Channel that allows photo compositing with selectable levels on a pixel by pixel basis. The new Chrominance effect allows absolute, real time control of image contrast, brilliance and re - mapping of colours.

Opal AnimMATE V2.0 - offering real time play back of animations created by ray tracers, landscape generators, morphers and all other 24 - Bit software.

Opal Hotkey V2.0 - Display OpalVision graphics anytime with key combinations.

Opal Presents - Comprehensive, icon - driven presentation package.

Special Limited offer

IMAGINE V2.0 for only **£59.99** when purchased with OPALVISION. Imagine 3D is the most popular 3D rendering software, that now supports OpalVision. This is a full version that would cost £300 if purchased separately. "Quite simply, it's a spectacular product" - Amiga Computing

"Undoubtedly the finest, most professional paint program to arrive on the Amiga" - Amiga Format

"Professional quality at this Price can't be turned away" - Amiga User International

"The verdict was unanimous - brilliant" - Amiga Shopper

INDI PRICE £599.99

OpalVision NEWS FLASH

At Last - OpalVision Upgrade Modules!

OpalVision Video Processor - Plugs into the OpalVision mainboard adds a wealth of additional features * 24 Bit real - time frame grab from composite or S - Video. * Professional quality genlocking * VLSI microcode processor "Roaster Cip" for Digital Video Effects * Luninance & Chroma Keying * 256 - level "Alpha Channel" (transparency) key. Management Software

OpalVision Video Suite - An advanced external rack mount video and audio switching device with it's own internal computer. Includes 9 video and 10 audio inputs, 24 - Bit frame store and a high special effects triggered manually or automatically. Full specification available on request

OpalVision Scan - Rate Convertor - For 31 Khz non - interlaced output of Amiga graphics, OpalVision images and any Pal or NTSC source. Time Base Correction adds to the list of professional features of a unit that simply plugs into the OpalVision main board specification available on request

Amiga 4000 OpalVision Systems

Complete Amiga 4000 / OpalVision systems are available for a range of applications

* Graphics/ Fine Artists * Multimedia * Videographers * Animators * Desktop Publishing * Designers

**TERMS AVAILABLE OVER 6, 12, 24, & 36 MONTHS SUBJECT TO STATUS.
WHY NOT RING FOR A QUOTE. SAMEDAY RESPONSE. (SEE EXAMPLE)**

Panasonic Quiet Colour Printing



We researched the colour printer market at great depth to find a colour printer good enough to cope with Amiga's powerful output, yet at an affordable price. We found the perfect printer in the KX - P2180 and KX - P2123 quiet printers.

We then considered that if you were going to buy a Panasonic printer you would probably need a quality word processing package to use with it. We found that too, with 'Wordworth' yet at a retail price of £129.99 we thought that might be a little too expensive on top of your printer purchase! So together with Panasonic we decided to give a copy of 'Wordworth' free with every Panasonic printer. How's that for added value?

Panasonic KX - P2180



*WORDWORTH COMPLETELY FREE! WITH PANASONIC

QUIET PRINTERS. The writers choice. The ultimate word processor for AMIGA computers. Wordworth is undoubtedly the ultimate word / document processor for the full range of AMIGA computers. The graphical nature of WORDWORTH makes producing documents faster and easier, with the enhanced printing fonts (including full Panasonic KX - P2180 and KX - P2123 colour printing support), Collins spell checker and thesaurus, no other word processor comes close. "Without doubt this is one of the best document processors for the AMIGA, Today" (Amiga Format)

NORMAL RRP £129.99 inc. VAT

INDI PRICE

£189.99

The new Panasonic KX - P2180 9-pin quiet printer.

Produces crisp clear text in mono or in 7 glorious colours with new quiet technology. The new KX - P2180 is typically 15dBa quieter in operation, than the competition.

* **Fast Printing Speeds** 192 CPS NLQ

* **Colour Printing** 7 colour palette (blue, red, green, yellow, violet, magenta, black)

* **Quiet printing** Super quiet 45 - 48 dBA sound level (most matrix printers are typically in excess of 60 dBA)

* **6 Resident Fonts** Over 6,100 type styles using Courier Prestige, Bold PS, Roman, Script and Sans Serif Fonts.

* **3 Paper Paths** Paper handling from bottom, top and rear for total flexibility

* **1 Year Warranty** for total peace of mind

Panasonic KX - P2123



INDI PRICE

£239.99

The new high performance Panasonic KX - P2123 24 pin. Quiet colour printer offers leading edge quiet printing technology at an affordable price

* **Fast Printing Speeds** 192 CPS draft, 64 CPS LQ and 32 SLQ.

* **Colour Printing** 7 colour palette (blue, red, green, yellow, violet, magenta, black)

* **Quiet Printing** Super quiet 43.5 - 46 dBA sound level (most matrix printers are typically in excess of 60 dBA)

* **7 Resident Fonts** Over 152,000 type styles using Super LQ, Courier Prestige, Bold PS, Roman, Script, and Sans Serif Fonts.

* **24PIN Diamond Printhead** High performance and high quality output

* **1 Year Warranty** for total peace of mind.

Panasonic LASER PRINTER

KX - P4410 LASER PRINTER



WORDWORTH COMPLETELY FREE WITH PANASONIC LASER PRINTERS.
The writers choice. The ultimate word processor for AMIGA computers
NORMAL RRP £129.99 inc VAT

INDI PRICE

£549.99

inc. VAT

Imminent price increase.
This price while stocks last.

WORDWORTH COMPLETELY FREE WITH LASER PRINTERS



KX - P4430 LASER PRINTER



INDI PRICE

£699.99

inc. VAT

Imminent price increase.
This price while stocks last.

*(Satinprinters use optimum resolution technology to produce truly outstanding print quality. This software technique smooths away traditional jagged edges on curved characters and lines by varying the printed dot size)

WORDWORTH COMPLETELY FREE WITH LASER PRINTERS

KXP - 4410

* 5 pages per minute

* 28 resident fonts

* Optional 2nd input bin (total printer capacity 2 x 200 sheets)

* Low running costs

* Parallel interface

* Optional memory expansion to 4.5 Mb (0.5 as standard)

* HP laserjet II Emulation

KXP - 4430

* Satinprint (optimum resolution technology)*

* 5 Pages per minute

* HP Laserjet III Emulation, PCL 5

* 8 Scalable fonts & 28 bitmap functions

* Optional 2nd input bin (total printer capacity 2 x 200 sheets)

* Optional memory expansion to 5.0 Mb (1 Mb as standard)

Panasonic PRINTER ACCESSORIES



1) PANASONIC AUTOMATIC SHEET FEEDER
Automatic sheet feeder for KXP 2180/ KXP 2123 holds 80 A4 sheets. **INDI PRICE £89.99**

2) PRINT DUST COVER
Specially tailored quality dust cover for Panasonic KXP 2180/ KXP 2123 printer. **INDI PRICE £8.99**

3) PRINTER STAND
2 piece printer stand. **INDI PRICE £9.99**

4) PAPER PACK
500 sheets quality A4 paper. **INDI PRICE £9.99**

5) CONTINUOUS PAPER
2000 sheets 1 part listing paper. **INDI PRICE £19.99**

6) PARALLEL PRINTER CABLE
To be used when connecting Amiga to Panasonic printers. **INDI PRICE £8.99** (£5.99 if purchased with a printer)

7) PANASONIC COLOUR RIBBON
Colour ribbon for KXP 2180/ KXP 2123. **INDI PRICE £18.99**

8) PANASONIC BLACK RIBBON
Black ribbon for KXP 2180/ KXP 2123. **INDI PRICE £9.99**

SAVE £££S ON THE FOLLOWING ACCESSORY PACKS

PACK 1 PANASONIC COLOUR RIBBON PACK
Contains 6 colour ribbons for the KXP 2123 RRP £119.99.
INDI PRICE £34.99 SAVE £30!!!

PACK 2 PANASONIC RIBBON PACK
Contains 2 black and 4 colour ribbons for KXP 2180/ KXP 2123. RRP £99.99.
INDI PRICE £69.99 SAVE £30!!!

PACK 3 PANASONIC DELUXE ACCESSORY PACK
Contains automatic sheet feeder, 2 black ribbons, 2 colour ribbons, 1 dust cover, 2 piece printer stand. RRP £169.99 **INDI PRICE £139.99 SAVE £30**

Add £2.50 carriage to all printer accessories or combinations thereof

**12 MONTHS INTEREST FREE CREDIT AVAILABLE ON CDTV EXTERNAL
HARD DISK SUBJECT TO STATUS. LOW INTEREST CREDIT
AVAILABLE ON ALL ORDERS OVER £200**



DESPATCH

All orders received by 6pm Monday to Friday are despatched sameday for delivery using our national courier - Securicor. (UK Mainland only) Saturday deliveries are available at a small surcharge. If you are out when we deliver, a card will be left at your home giving you a contact telephone number to arrange a convenient re-delivery. Delivery queries can be resolved immediately using our on-line computer. Cheque clearance, usually 10 working days from receipt. A delivery charge of £5.00 is made per item unless otherwise stated. **WE ALSO ACCEPT B.F.P.O. ORDERS (DUTY FREE) CARRIAGE CHARGE AT UK POSTAL RATES.**

HOW TO ORDER

BY POST - Simply fill in the coupon below.
BY PHONE - phone lines open 9.00am - 7.00pm Mon - Fri. 9.00am - 4.30pm Sat. - where your call will be answered by one of our INDI sales team. After 7.00pm each day your call will be answered by answerphone. If you would like to place an order have all the details at hand including credit card. All offers subject to availability. Prices correct at time of going to press. May we suggest you call before ordering.

SEND YOUR ORDER TO:

**INDI DIRECT MAIL
1 RINGWAY INDUSTRIAL
ESTATE,
EASTERN AVENUE,
LICHFIELD
STAFFS. WS13 7SF**

AUI0893

Please send.....
1).....
2).....
3).....
4).....

Price..... + Delivery.

I enclose cheque/ PO for £.....
or charge my Access/ Visa No.....

Expiry...../...../.....

Signature.....

Name.....

Address.....

Deliver to if different.....

Daytime Tel.....

Postcode.....

AMIGA CDTV THE MULTIMEDIA COMPUTER TOTAL HOME



MONITOR NOT INCLUDED

ENTERTAINMENT SYSTEM



The problem with any new product is that it always takes time for everyone to realise its full potential. CDTV is no exception and in our opinion everything we have read does a pretty poor job of explaining just what CDTV can do and why it is so exciting.

THE INDI GUIDE TO CDTV

IT'S A CDTV PLAYER - Yes, it will play all your Primal Scream, Pavarotti, Pink Floyd and any other CD you care to mention in superb high quality stereo, with infra red remote control.

IT'S AN AMIGA - Plug in the keyboard, switch on the external disk drive and the colossal range of inexpensive Amiga Software can be used on CDTV.

IT'S A MULTIMEDIA SYSTEM - Just imagine, stereo sound, images and text all on screen. It asks a question, you respond, it responds - truly interactive! Each CD disk holds hundreds of megabytes of data with instant optical access. The whole of Hutchinsons encyclopaedia fits on to one disk. This interactive system is a unique aid for Education, Business or Leisure. The future is here!

PACK CONTENTS AS STANDARD * Amiga CDTV Player * CDTV Keyboard * CDTV 1411 3.5" Disk Drive * CDTV Infra Red Remote Controller * CDTV Wired Mouse * CDTV Welcome Disk * Manuals * Fred Fish CDTV Disk

INDI VALUE ADDED FREE * Lemmings CDTV (£34.99)

* Blues Brothers (£12.99) * Pipemania, Populous, Kickoff 2, Space Ace.

INDI PRICE

PACK AS SHOWN £329.99

PRICE CRASH £399.99

**MULTI MEDIA PACK WITH-
OUT INDI VALUE ADDED £299.99**

CDTV CONNECTS DIRECTLY TO YOUR TV SET

AMIGA CDTV ACCESSORIES



THE BRICK - ETTÉ
Just plug in the brick - ette and use any wired Amiga compatible joystick, mouse or trackball device on the Commodore CDTV. The built-in 8-bit Micro Processor gives the Brick - ette big smarts in a tiny package and makes it easy to use just plug into the remote port and it is ready to go with real time mouse or joystick movement on your CDTV. No loading of driver programs or software. No switches for mouse or joystick. Special settings (with mouse) allow you to blast away with three rapid fire modes & dual fire buttons. Comes complete with Python Micro switched joystick.
INDI EXCLUSIVE £49.99
With two joysticks **£59.99**



BLACK 1084S MONITOR
At last the CDTV Monitor you have been waiting for. The original and best selling colour/ stereo monitor from Commodore is now available in black to complement your CDTV.
INDI PRICE £189.99
(or £179.99 when purchased with CDTV Multi Media pack)



If you are thinking of buying CDTV or already own one you'll be pleased to know that INDI stock all CDTV accessories and software that are available from manufacturers. We believe in CDTV and we therefore continue to support this exciting product. You will always have a source of product for your CDTV from INDI.

L to R
CDTV Encore SCSI Controller + Internal Mount **£109.99**
CDTV Internal Genlock **£149.99**
Black 1084S Colour Stereo Monitor **£189.99**
(When purchased with CDTV Multi - Media Pack) **£179.99**
CDTV Remote Mouse **£49.99**
Scart TV / Monitor Lead **£14.99**
(inc Stereo Phono Lead)
Megachip - 1Mb Upgrade Chip RAM Upgrade for CDTV **£159.99**
CDTV Trackball **£69.99**

AMIGA CDTV EXTERNAL HARD DISK DRIVE

You've got the CDTV, you've got the keyboard and the floppy disk drive - for a total computer solution all that's needed is an ultra fast hard disk drive. The CDTV - HD unit boasts a massive **85 Mb** of hard disk storage with lightning fast access times through its SCSI interface. The unit comes complete with Workbench 1.3 and all necessary cables.



INDI PRICE

£299.99



AMIGA CDTV SOFTWARE

**SEE THE JAKKI BRAMBLES PAGE
FOR DETAILS OF THE INDI SOFTWARE CLUB**

ARTS AND LEISURE

Advanced Military Systems **£29.99**
Women in Motion **£29.99**
Guinness Disc of Records **£34.99**
Animals in Motion **£29.99**
Connoisseur Fine Arts **£34.99**
Fruits & Vegetables **£34.99**
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A Bun for Barney **£29.99**
Cinderella **£39.99**
Fun School for 6 to 7 **£24.99**
Fun School for Over 7's **£24.99**
Heather Hits her First Home Run **£34.99**

LTV - English as a 2nd Language

Mind Run **£29.99**
Mud Puddle **£34.99**
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Tale of Benjamin Bunny **£39.99**
Tale of Peter Rabbit **£39.99**
Thomas's Snowsuit **£34.99**
Moving Gives me Stomach Ache **£34.99**
Barney Bear Goes Camping **£29.99**
Asterix English for French I **£34.99**
Japan World (PAL) **£49.99**
Fractal Universe **£34.99**
Read with Asterix **£19.99**

ENTERTAINMENT

Battlechess **£39.99**
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All Dogs Go To Heaven: Electric Crayon

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Dinosaurs for Hire **£14.99**
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Town with No Name **£29.99**
European Space Simulator **£34.99**
Fantastic Voyage **£34.99**
Global Chaos **£29.99**
Turrican II **£29.99**
Guy Spy **£29.99**
Curse of Ra **£24.99**
Space Wars **£29.99**
Defender of the Crown **£29.99**

Case of the Cautious Condor

Super Games Pack **£24.99**
Tiebrake Tennis **£19.99**

MUSIC

Music Maker **£34.99**
Remix **£29.99**
Karaoke Fun Hits I **£14.99**
Voicemaster + Microphone **£39.99**
Music Maker **£26.24**
Blues Brothers (Audio CD only) **£10.99**

REFERENCE

American Heritage Dictionary **£49.99**
Complete Works of Shakespeare **£29.99**
Illustrated Holy Bible **£29.99**
New Basic Electronic Cookbook **£39.99**
Timetable of Business **£39.99**
Dr Wellman **£54.99**

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"The artists Toaster" – Donn K,
World of Commodore Show, New York, 1993

Rainbow Grafix

Zorro II/III Graphics Board for the AMIGA
1/2MB High speed dual-ported Video Memory
Memory cycle with zero wait state and fast RAM
performance • Pixel/bit aligned and memory
mapped into Zorro II expansion space • Resolution
programmable 640x480 to 1280x1024

Options

Quarter screen mode for animation
Video outputs : 1 x composite 1 x Y/C (S-VHS/Hi8)

PRICE £399

Rainbow Grafix III

Zorro III Graphics Board for the AMIGA 3000/
4000
4MB High speed dual-ported Video Memory
True colour display with 16.7 million colours and 32
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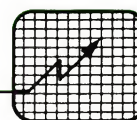


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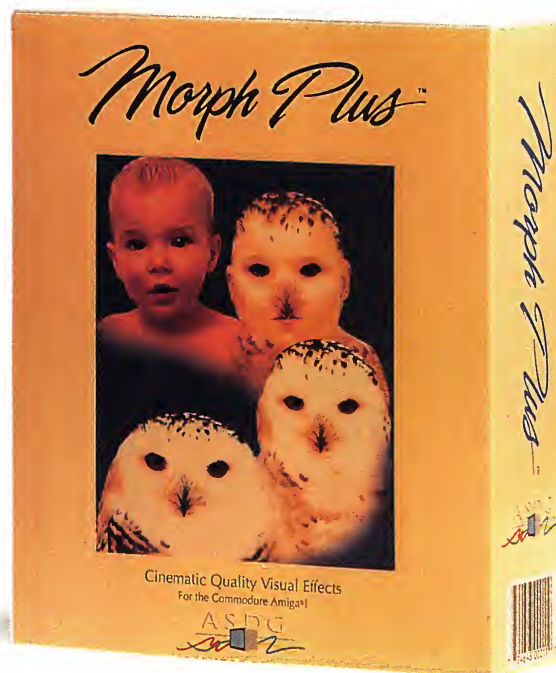
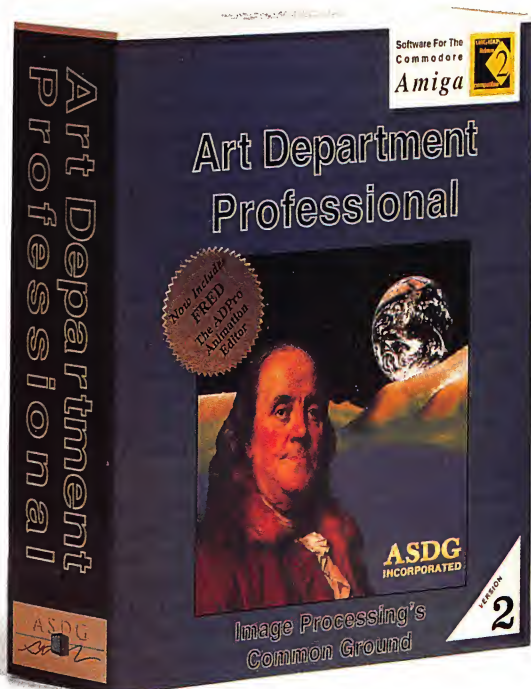
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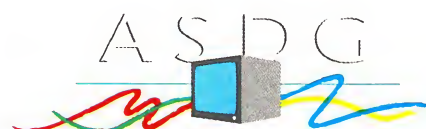


show Quantum Leap and for major motion pictures.

- Mark Swain, an AmigaWorld reviewer (and animator for Foundation Imaging, the creators of the special effects for Babylon 5), said, "MorphPlus produces the most realistic shape shifting special effects I have ever seen on a desktop."
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this is...

Amiga CD!

What follows is an eight page taster of something new, something radical, something raw, exciting and mysterious. It's the hottest thing to have a CD on it since Prince held a copy of Lovesexy over his genitals, the best value for money since the price of the Amiga CD32 was set at £299.99, the brightest thing this side of the sun - Amiga CD! Magazine.

How can you get hold of a copy of the full mag? Only by waiting for the official launch in October. But for now, I hope this invasion of AUI whets your appetite. If you can't wait until October, buy an Amiga CD32 - Amiga CD! Magazine will be invading every single box.

IN THIS ISSUE:

We premiere twenty great games due for CD32

WIN one of five Amiga CD32 consoles!

OSCAR and PINBALL FANTASIES - in depth previews

WHAT IS the Amiga CD32?

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Hit

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Thats over 600

reviews, news, tips and competitions

ZAZA: Is there anybody there? Is there anybody there?

CD32: Er... only me.

ZAZA: What is your name? Speak to Madame Zaza!

CD32: Ooh, stop all that mumbo-jumbo will you? You're giving me a processor-ache. I'm the new Amiga CD32.

ZAZA: But WHAT are you? Speak now, or hold your peace forever!

CD32: I really wish you wouldn't shout! All right, this is what I am. I am a games console designed to kick seven or eight shades out of the likes of Sega and Nintendo. Underneath all of this plastic flashiness I'm an Amiga A1200. 32-bit, don't you know?

ZAZA: There is more. You are keeping things from me. Speak, for Madame Zaza knows and sees all!

CD32: Then why are you bothering to do this at all?

ZAZA: I'm asking the questions!

CD32: Very well. I am also... a bitstream CD player. Wire me up to an amplifier and a couple of speakers and I'll play your audio CDs along with the best.

ZAZA: AH! Everything is starting to get clearer. What else?

CD32: Well, there IS the little matter of full-motion video...

ZAZA: Pray tell!

CD32: Well, once Commodore manages to get the board finished, I'll be able to cope with full-screen full motion video.

ZAZA: Which means?

CD32: Which means that I'll be able to take over an hour's worth of VHS quality pictures and sound from a single CD and play it back at 25 frames per second. At the moment I can handle half-screen and 12 frames per second.

ZAZA: So I could be using you to watch films as well as play games and audio CDs?

CD32: Exactly.

ZAZA: Smug git.

CD32: Well, you did ask...

ZAZA: So I presume that you'll be able to do things like CD+G -audio and graphics- as well?

CD32: Naturally.

ZAZA: And music videos?

CD32: Well, once the music industry realises that it can package a CD single and CD video single on the same disc and sell it for more profit, that's bound to happen. The punter gets CD quality audio and VHS quality images without loads of bulky boxes all over the place. He doesn't even need another machine to watch them on - all he has to do is play them on me!

ZAZA: But didn't you say that you're really an A1200? Isn't that a waste of potential?

CD32: Not at all. Commodore will make a keyboard, mouse and floppy disk drive available shortly.

ZAZA: So, let me get this right. You're a games console...

CD32: Yes.

ZAZA: and an Amiga A1200...

CD32: Yes.

ZAZA: and a CD player...

CD32: Yessss...

ZAZA: AND you'll be a video player and a CD+G player?

CD32: YES!

ZAZA: Is there anything you can't handle?

CD32: Well, I won't be able to cope with viruses, or pirated games, because no-one can afford to write to CDs yet. A virus can't write itself to CD, nor can a thief copy one. What would he do, download it onto 680 floppy disks??

ZAZA: You may rest now. Sleep, sleep...

CD32: No way! There's no rest for me. Today, Sega and Nintendo, tomorrow, the world!

ZAZA: Just one more thing - how much are you?

CD32: £299.99. And that price is bound to come down before too long.

ZAZA: £299. Hmm. How much am I getting for this interview?

CD32: Too much, I'd say...

So there you have it. Exclusive contact with...

The Amiga CD32.

Why not go out and make contact with one when it's launched in September?

It's life Jim, but we know it....

Just what is this Amiga CD32 thingy that everyone's going ape over? We contacted Madame Zaza a La Baba, the world's leading human-to-consumer-electronics medium, to converse directly with an Amiga CD32 and ask it some searching questions. The stunning results of this happily unique interview follow.

MIGA C

CD32?

not as

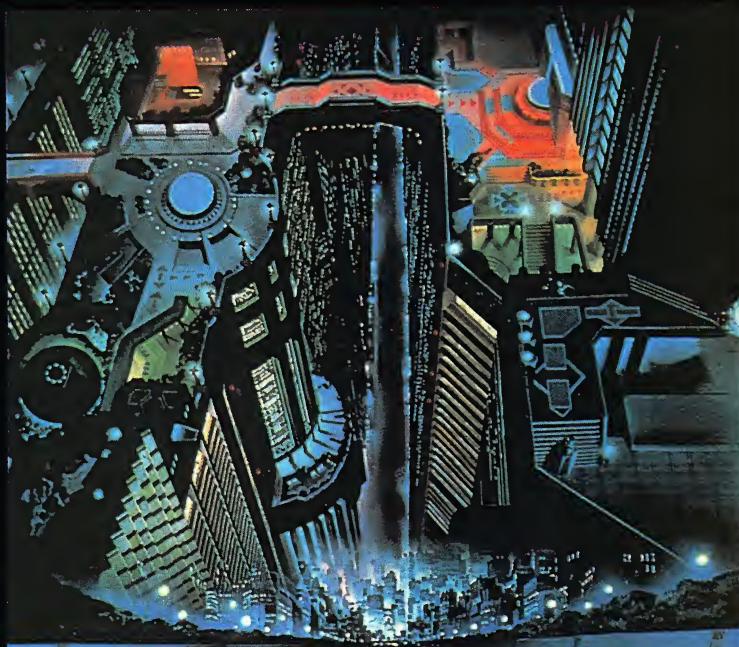
D32

previews

Mango: a large, fleshy fruit from the tropics. Manga: a massive, violent concept from Japan, flesh also featuring there somewhere, but this time flying about in huge, gore-streaked gobbits. Every video store in the known universe carries a large amount of these videos, which are even more popular than Sumo, Sega or Sony.

Perhaps the most infamous of all Manga's characters is Akira. He's living Hell on a bike, tougher than a Range Rover chassis and meaner than a Rottweiler in a microwave oven. The connection with Amiga CD32? Well, the lucky company to secure the licence to Akira for computer formats is ICE. Stuart Bell, ICE's MD, is naturally pretty happy about all this: "Akira is going to be absolutely massive. Everyone's talking about it."

Akira should be around in 1994 for the Amiga CD32, but watch Amiga CD! for more on the Manga scene.



Hotter than anything Yamaha have produced

ICE ONE FROM THE LAND OF THE RISING SUN

GRANDSLAM, THANK YOU MA'AM

Nick Faldo may not have won the Open, but the golf game with his name stamped all over it is due to hit the CD32 any time now. It promises enhanced graphics and sound over the floppy version (which I'm sure you'll agree is very good news) and all budding Faldos should look out for it. You too can be labelled as World No.1...



Old Nick couldn't win but Grand Slam hopes to.



Premiere
Take a trip through the
forthcoming attractions
for the Amiga CD32
coming soon to a
Commodore
console near
you!

SENSIBLE SLAUGHTER

Docklands-based Renegade, the jolly nice home of industry old-timers the Bitmap Brothers, is the latest company to pledge undying loyalty to the new Commodore console. First release will probably be The Chaos Engine, featuring large, bemuscle hoodlums sporting ray-bans and huge weapons and shooting lots of other hoodlums in a 256-colour Victorian paradise. One thing's for sure, you may have seen the game before but it never looked this grand.

The other title planned by Renegade is Sensible Soccer, on the march from Sensible Software in March. Which doesn't mean you'll have to wait until March to get hold of it - all indicators point to the best-selling soccer game being around pre-Xmas. So start saving your nuggets now.

TWO VIRGINS ON THE FENCE

No-one is sure what will happen with the Amiga CD32 - other than that it has the potential to do great things, which I hope you've already realised by now - but many, many companies have decided to give the new format their backing. No piracy! The price! Double the power of Sega CD!

However, two companies still

sitting on the fence are Electronic Arts and Virgin.

"We haven't really decided whether or not to support the new format," said Nick Channon of EA. "Syndicate may become available but no plans are definite." Bad.

Virgin's response was even more upsetting. "We'll be studying the performance of the machine, looking to see how sales go and

examining our options closely before committing ourselves to supporting it," said Caroline Stokes. "This process may take up to nine months." NINE MONTHS! I mean, a child goes from sperm to infant in that time! No Dune 2? No Jimmy White? Sob...

Gremlins in the works

Everyone's favourite platform superstar, Zool, will be available for the launch of the Amiga CD32, Gremlin Graphics has confirmed. One hopes it will take the hardware even further than the 16-bit A500 version did. With Zool and Robocod on its tail, how long will Flairsoft's

Oscar manage to stay the numero uno platform game on Amiga CD32?

Other rumours (reported as 'facts' by other 'magazines') include a one-disk Lotus trilogy and several other compilations which may or may not slip out of the Sheffield supremos' HQ. But will

they ever appear? "Nothing is decided yet, so who can tell?" one source from Gremlin is quoted as saying. Fact: a pig just flew past the window. Who dropped him, I wonder? Which just goes to prove that you can't believe everything you read. (Even here? Ed.)

MAN U, WHO ARE YOU?

Manchester United 3 is just one of a trio of Krisalis games due for the new Amiga CD32. Sadly though, only Sabre Team will be available



Soccer Kid keeps up his strength by grabbing some snacks



Life as a pro footballer is all yachts and palm trees

before Xmas - you'll have to hold your breath for the aforementioned soccer management game based on sad, league-topping footie team. The same goes for Soccer Kid, a game already hailed by some pundits as a potential game of the year.

Well, Soccer Kid is unlikely to be the CD32 game of the year as it won't even appear for the format this year. CD32 game of the year for 1994? Who can tell? Krisalis would like you to commit money to it already, but if were I you I would hang onto my dosh and wait awhile.

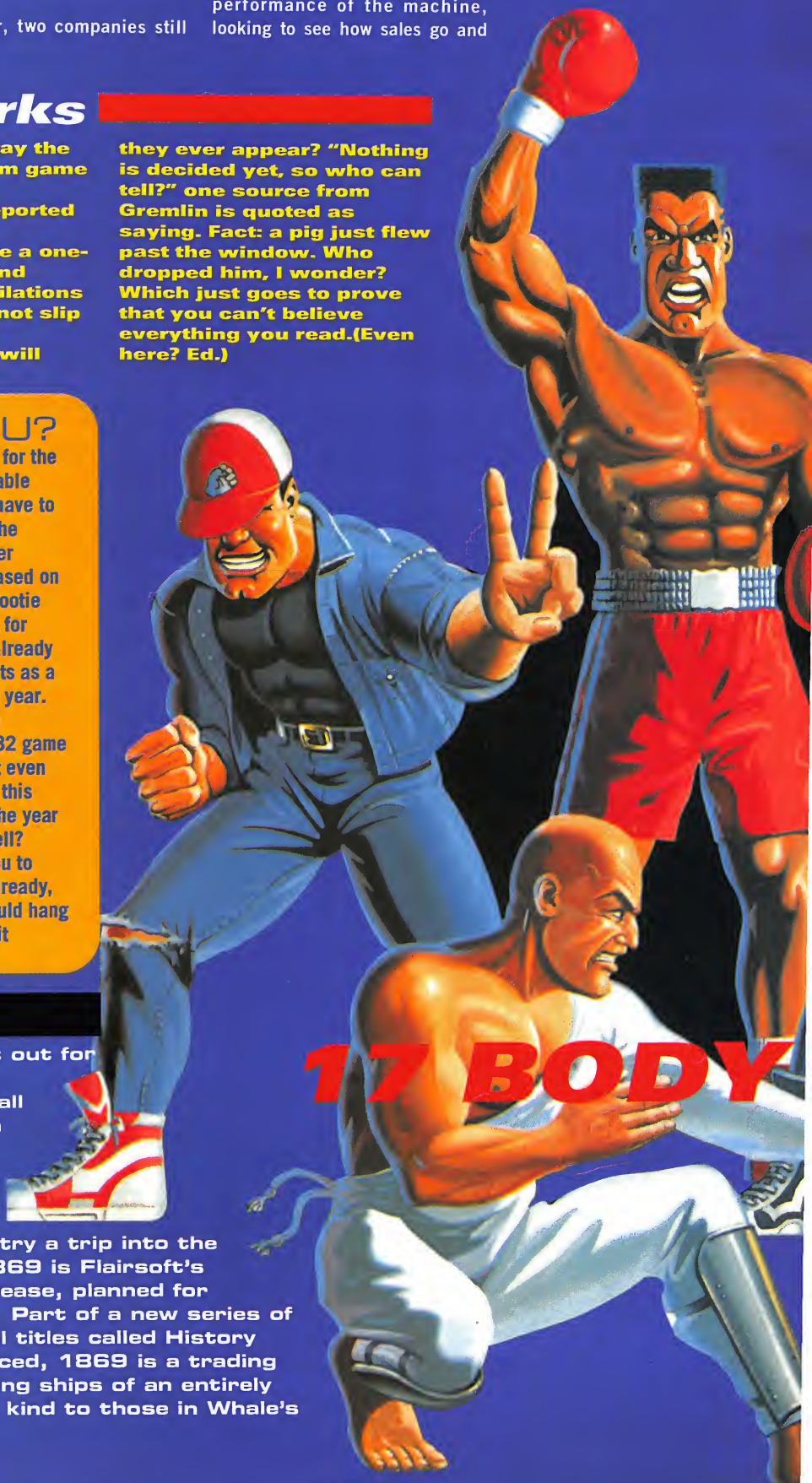
A FLAIR FOR GREAT GAMES

Elsewhere in this mini-issue of Amiga CD! you'll find a review of Flairsoft's very first game for the Amiga CD32, Oscar. The company also plans to have two other games available very soon.

Whale's Voyage is due by the time the machine hits the street and casts you as a...lump of genetic waste. If you think that's all a load of crap, you're getting warm! But you're an ambitious stool, if such a thing is possible (and in an infinite universe, everything is possible), and your goal is to become a top trader. Coo! Looks like you've got your

work cut out for you.

If that all sounds a bit too far-fetched for you, why not try a trip into the past? 1869 is Flairsoft's other release, planned for October. Part of a new series of historical titles called History Experienced, 1869 is a trading game using ships of an entirely different kind to those in Whale's Voyage.



The ferocious T-rex attacks. Maybe you should have left his spider plant alone.



Prepare to tee off. Dig that haircut!



DIG THIS POND

Millenium is a household name in the Amiga market and it's hoping to become one in the CD32 market too. At least two titles will be available at the machine's launch: James Pond 2 - Robocod, the CD version of the classic Amiga hit; and Diggers, which has been described by some neutral observers as "rather similar to Lemmings".

Not that I would stoop to such blatant name-calling. Hell, if it's a rip-off of Lemmings I'd tell you straight. If someone looks like Kim Bassinger, I tell her straight (over a drink) so why can't everyone be the same? I reserve judgement for the full review - look out for it in the first full issue of Amiga CD!

LOWES

Team 17 is one of the most accomplished software houses for the Amiga. Question: Will the heroic software house rename itself Team 33 when supporting CD32? That remains to be seen, as does the quality of the firm's Amiga CD32 titles - but if their past record is anything to go by, things should look pretty hot.

The first game due is Alien Breed 2.

You're expected to blast to pieces large numbers of acid-filled, gruesome-looking alien mothers with little street cred and no sense of humour. Sounds pretty close to Heaven to me. Body Blows is also expected to come across to the CD based format in time for the festive season. I couldn't get confirmation about Project X - but if it were to turn up, I'm sure it would be well received...



Fancy a T-rex with a zero handicap?

Not much more than asking him to hand over your sand wedge. From this somewhat irrelevant prose, the more lateral-thinking among you may (or may not) have guessed that Ocean's first two releases for CD32 will be Jurassic Park and International Golf.

International Golf will be the first to give Nick Faldo's licence a run for its money. Will it feature a full set of clubs, choice of caddies, lots of beautiful courses, plenty of grass and stunningly digitised CD sound? Well, it would hardly be a golf game without all that, would it? Of course, it won't manage to be realistic - short of Ocean designing a bit of hardware to allow you to emulate a golf swing.

Everyone with eyes, ears or nose will know all about Jurassic Park. In fact, everyone has gone so Dino-mad, I would be tempted to call the game something else: Up-er-ass-ic Park, simply because there are dinosaurs coming out of everyone's bum at present. No magazine cover (including, I admit, the mock cover for Amiga CD!), cereal packet or restaurant window is complete, it seems, without a T-Rex grinning out from them. Ocean's game of the film should do well, thanks to all this publicity...

2 CAPTIVE CHICKENS

Liberation: Captive 2 was already being demonstrated at the Amiga CD32's official press launch, albeit not nearly finished, but it should be ready to roll (or rather spin) by the time the console appears in the shops. From the creative keyboard of none other than Tony Crowther (responsible for Nightmare and the original Captive), it should make full use of the machine's capabilities, as well as getting the best out of the dinky little paddle controller too.

Just to show that no-one can be taken seriously, Mindscape included, Alfred Chicken rears his poultry head, dangling his dewlaps, wagging his wattles and jiggling his jowls. Some people will do anything for a laugh. To prove this theory, Mindscape are asking us to believe that a character called Alfred Chicken will be the greatest hero to ever grace a platform game. Ha-ha! Nice one lads. You crack me up!

Amiga
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By now I hope you've been convinced that Amiga CD! magazine is as exciting a prospect as the Amiga CD32 itself. But what's even better than a £299 killer games machine cum CD player? I'll tell you what is better - a FREE one!

Those tremendously friendly, generous and public-spirited chaps and chapesses at Commodore have done themselves proud this time. They've offered no less than FIVE of the latest and greatest games machine for you to win! Just think, a few weeks from now you could be making your sad Sega and no-hoper Nintendo-owning friends sick with envy by showing them just what a games console should be. And what do you have to do to win this great prize? Easy. Just write in to me at Amiga CD! Magazine with the answers to these tricky and taxing questions:

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- 2: WHERE DO YOU LIVE?** (full address please)
- 3: HOW OLD ARE YOU?**
- 4: WHAT MACHINE DO YOU CURRENTLY OWN?**
- 5: WHAT IS YOUR FAVOURITE SOFT DRINK?**
- 6: WHAT IS YOUR FAVOURITE GAME EVER?**

Slap it on a postcard or the back of an envelope and zap it to:
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Oscar

OSCAR

FLAIRSOFT ETBA

Oscar the rabbit is one unhappy bunny. His ambition in life is to become as famous as Fred EstHare, but his exploits to date have proved fruitless; trying his luck in cartoons by standing in as a stunt rabbit for Buggs Bunny, hanging around outside Bob Hoskins' ho use looking cute, that kind of thing. Finally, he makes his big break into movies, in true Roger Rabbit style, by driving down to the cinema and just stepping into the celluloid world of each feature film.

His goal is, quite simply, to collect as many golden Oscars as possible from their devious hiding-places in each platform-game film set. Grabbing these Oscars makes him more famous, opens up the path to the next feature film and gives him a useful chat-up line ("Would you like to come back to my place and see my oscars?"). The films include such all-time greats as Jurassic Pranks, Sci-fi Encounters and Wild West World and each is fully populated with suitably attired bad guys.

The pics on this page just won't prepare you for the explosion of sights and sounds that'll greet you when you play Oscar for the first time. This is one psychedelic

bun: his creators have heaped their considerable flair for colours onto this game and, with 600MB of compact disc space to play with, they could afford to make Oscar, as well as his enemies, look different on each level.

Collect anything and stars explode Trolls-like all over the screen, grab an Oscar and more bonus pickups fly about. Meanwhile, ultra-smooth multi-layer parallax scrolling makes the background slip by as smoothly as a slug on a frozen puddle of gold Tequila.

Oscar is not alone in his quest for glory. His journeys through the different film sets are made far more tricky (and, let's face it, interesting) by the inclusion of a few well-chosen bunny bashing bad blokes (and babes). The cast of each movie are rather aggressive and do nothing to pooh-pooh the old myth about actors stabbing each other in the back to further their own careers.



The Lowdown

If you're a Trolls freak, you could be forgiven for thinking that you've seen all this before. Truth is, Oscar is remarkably similar to the Trolls game which hit the Amiga, PC and consoles not so long ago.

That's no bad thing unless you accidentally buy both at once (and Trolls isn't out for CD32, so there's not much chance of that). Trolls was a great game and Oscar is, too. At this stage there isn't a better platform game available for the machine.

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21ST CENTURY ETBA

Mods and Rockers stab each other on Brighton beach over the chance to challenge Tommy, the kid who plays by sense of smell. If Pinball Wizard was your idea of the greatest film ever (never mind Ghostbusters, Home Alone or Jurassic Park) and you spend all your free time hanging around arcades, pubs and bars with a rapidly-emptying pocketful of pound nuggets, then Pinball Fantasies will fulfil your every...fantasy.

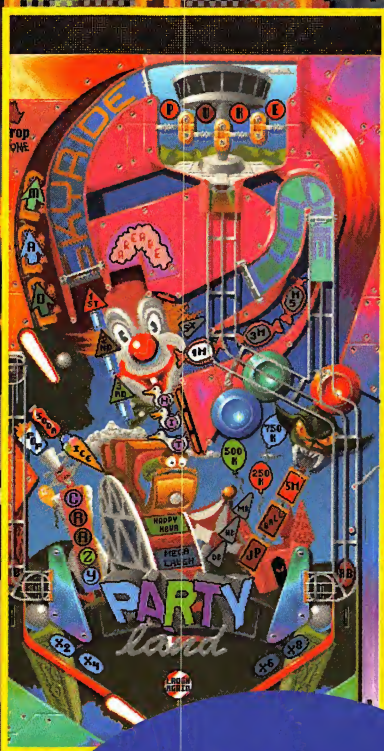
21st Century have become well-known as pinball wizards extraordinaire, ever since Pinball Dreams first appeared on the humble Amiga a couple of years ago. Dreams was to pinball what Sensible Soccer was to football games for the Amiga, prompting many to gasp "Can a nuthing possibly beat this?"

The answer was "Yes, but just give us a chance to spend some of the dosh we made from Dreams first." That done, 21st Century duly set their programmers

to working on the sequel (in their spare time, after converting Pinball Dreams to run on everything from Sega and Nintendo to pocket calculators and washing machine brains). The result? You've guessed it, Fantasies was even better than Dreams.

And that was only the 16-bit version. The CD edition of PF has once again done what everyone said was impossible: bettered the Amiga version which has sold and sold. All four tables (Partyland, Billion Dollar Game Show, Speed Devils and Stones and Bones) have been retained in the conversion, now more glorious than ever in 256 colours. Where the 16-bit version seemed garish and as subtly-coloured as a beach ball, the CD32 edition is simply stunning to behold.

Sound, too, has been overhauled, with all the samples of the original retained, but new digitally-produced CD quality soundtracks for the music added. You'll truly believe that your CD32 has upped sticks and moved itself into an amusement arcade. That's just through a TV - wire it up to the family stereo, make sure the doors and windows are closed and crank up the V. It's frighteningly good.



JUDGEMENT DAY

The Sights:

93

The Sounds:

91

Junkiness:

90

Doshworth?:

90

The Verdict:

91

The Lowdown

The tables are almost everything that a pinball fan could ask for.

The only omission is a Multiball feature. That's because the tables are much bigger than one screen in height and the screen scrolls around to follow the ball. 21st Century are trying to solve this problem for when Pinball Illusions will be ready (but don't hold your breath - it may not appear until Xmas '94!).

That really is the only criticism I can make. Pinball Fantasies is a truly excellent game. Well-paced, addictive and catering for up to eight players.

This is one for all the family, assuming they like pinball, that is...

